DIGITAL VIDEO DISC PLAYER &
VIDEO CASSETTE RECORDER

DVP3150V/37

User manual

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PHILIPS

English

Return your Product Registration Card or register online at www.philips.com/usasupport today to get the very most from your purchase.

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*Product Safety Notification

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*Additional Benefits

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Most importantly, you can count on our uncompromising commitment to your total satisfaction.

All of this is our way of saying welcome - and thanks for investing in a PHILIPS product.

P.S. To get the most from your PHILIPS purchase, be sure to complete and return your Product Registration Card at once, or register online at:
www.philips.com/usasupport

Know these **safety** *symbols*

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This "bolt of lightning" indicates uninsulated material within your unit may cause an electrical shock. For the safety of everyone in your household, please do not remove product covering.

The "exclamation point" calls attention to features for which you should read the enclosed literature closely to prevent operating and maintenance problems.

WARNING: To reduce the risk of fire or electric shock, this apparatus should not be exposed to rain or moisture, and objects filled with liquids, such as vases, should not be placed on this apparatus.

CAUTION: To prevent electric shock, match wide blade of plug to wide slot, fully insert.

ATTENTION: Pour éviter les choc électriques, introduire la lame la plus large de la fiche dans la borne correspondante de la prise et pousser jusqu'au fond.

For Customer Use

Enter below the Serial No. which is located on the rear of the cabinet. Retain this information for future reference.

Model No. _____

Serial No. _____

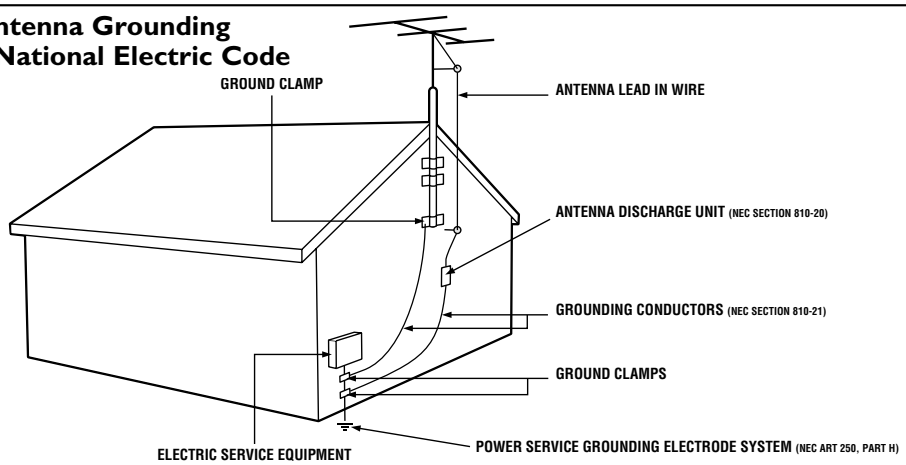
IMPORTANT SAFETY INSTRUCTIONS

Read before operating equipment

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any of the ventilation openings. Install in accordance with the manufacturers instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and third grounding prong. The wide blade or third prong are provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. This product may contain lead and mercury. Disposal of these materials may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or the Electronic Industries Alliance: www.eiae.org
16. **Damage Requiring Service** - The appliance should be serviced by qualified service personnel when:
    - **A.** The power supply cord or the plug has been damaged; or
    - **B.** Objects have fallen, or liquid has been spilled into the appliance; or
    - **C.** The appliance has been exposed to rain; or
    - **D.** The appliance does not appear to operate normally or exhibits a marked change in performance; or
    - **E.** The appliance has been dropped, or the enclosure damaged.
17. **Tilt/Stability** - All televisions must comply with recommended international global safety standards for tilt and stability properties of its cabinet design.
    • Do not compromise these design standards by applying excessive pull force to the front, or top, of the cabinet which could ultimately overturn the product.
    • Also, do not endanger yourself, or children, by placing electronic equipment/toys on the top of the cabinet. Such items could unsuspectingly fall from the top of the set and cause product damage and/or personal injury.
18. **Wall or Ceiling Mounting** - The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
19. **Power Lines** - An outdoor antenna should be located away from power lines.
20. **Outdoor Antenna Grounding** - If an outside antenna is connected to the receiver, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges.
    Section 810 of the National Electric Code, ANSI/NFPA No. 70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding connectors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure below.
21. **Object and Liquid Entry** - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
    a) Warning: To reduce the risk of fire or electric shock, this apparatus should not be exposed to rain or moisture and objects filled with liquids, such as vases, should not be placed on this apparatus.
22. **Battery Usage CAUTION -** To prevent battery leakage that may result in bodily injury, property damage, or damage to the unit:
    • Install all batteries correctly, with + and - aligned as marked on the unit.
    • Do not mix batteries (old and new or carbon and alkaline, etc.).
    • Remove batteries when the unit is not used for a long time.

Note to the CATV system installer: This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Example of Antenna Grounding as per NEC - National Electric Code


GROUND CLAMP
ANTENNA LEAD IN WIRE
ANTENNA DISCHARGE UNIT (NEC SECTION 810-20)
GROUNDING CONDUCTORS (NEC SECTION 810-21)
GROUND CLAMPS
POWER SERVICE GROUNDING ELECTRODE SYSTEM (NEC ART 250, PART H)
ELECTRIC SERVICE EQUIPMENT

4 Safety Information (cont'd)

Safety Precautions

Warning: To prevent fire or shock hazard, do not expose this equipment to rain or moisture.

Federal Communications Commission (FCC) Warning: Any unauthorized changes or modifications to this equipment void the user's authority to operate it.

- Do not stand the unit up vertically. Install the unit in a horizontal and stable position.
- Be sure to remove the disc and unplug the AC power cord from the outlet before carrying the unit.

Department of Health and Human Services (DHHS) Certification: Complies with 21 Center for Radiation (CFR) chapter 1 subchapter J applicable at time of manufacture.

Laser Safety: This unit employs a laser. Only a qualified service person should remove the cover or attempt to service this device, due to possible eye injury.

CAUTION: USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

CAUTION: VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCK DEFEATED. DO NOT STARE INTO BEAM. THE BEAM IS LOCATED INSIDE, NEAR THE DECK MECHANISM.

Special Information for Canadian Users: This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Radio/TV Interference: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1) Reorient or relocate the receiving antenna.
2) Increase the separation between the equipment and the receiver.
3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4) Consult the dealer or an experienced radio/TV technician for help.

Copyright Notice: The making of unauthorized copies of copy-protected material, including computer programs, files, broadcasts and sound recordings, may be an infringement of copyrights and constitute a criminal offence. This equipment should not be used for such purposes.

Copyright Protection: Unauthorized copying, broadcasting, public performance, and lending of Discs are prohibited.

This product incorporates copyright protection technology that is protected by U.S. patents and other intellectual property rights. Use of this copyright protection technology must be authorized by Macrovision, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision. Reverse engineering or disassembly is prohibited.

Notice for Progressive Scan Use: Consumers should note that not all high definition television sets are fully compatible with this product and may cause artifacts to be displayed in the picture. In case of picture problems with 525 progressive scan output, it is recommended that the user switch the connection to the 'standard definition' output. If there are questions regarding your TV set compatibility with this 525p DVD player, please contact our customer service center.

Note to the Cable TV System Installer: This reminder is provided to call the Cable TV system installer's attention to Article 820-40 of the National Electrical Code, which provides guidelines for proper grounding – in particular, specifying that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as possible.

Declaration of Conformity

Model Number:	DVP3150V/37
Trade Name:	Philips
Responsible Party:	Philips Consumer Electronics North America P.O. Box 671539 Marietta, GA 30006-0026 1-888-PHILIPS (744-5477)

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English

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6 Introduction

Welcome!

This DVD/VCR combines a Digital Video Disc (DVD) player and a Hi-Fi Video Cassette Recorder (VCR) into one unit, letting you play DVDs, Audio Compact Discs (Audio CDs), and Video Cassettes on one piece of equipment.
Read this owner's manual carefully to learn how to use the features listed below.

VCR Features

- Automatic Head Cleaner
- Channel Setup
- English, French and Spanish menus and displays
- Multi-Channel TV Sound
- 19 Micron head
- Recording: One-Touch and Timer
- Repeat Playback
- Searching: Time, Index, Forward and Reverse
- Slow Motion
- Still Picture
- Tape Counter
- Tracking Adjustment

Disc Features

- Audio Language choices *
- Camera Angles *
- DVD Menus in a desired language *
- Markers
- MP3 Playback
- JPEG Playback
- Windows Media™ Audio Playback
- Dual Playback
- Parental control *
- Paused/Fast/Slow/ Step-by-Step Playback
- Program Playback
- Progressive Scan
- Random Playback
- Repeat, A-B Repeat
- Resume On
- Specific Time/Title/ Chapter/Track Playback
- Subtitles *
- Zoom

* *If available on the disc*

Package Contents

The following items are provided with your new DVD/VCR.

- Remote Control and two AA batteries
- One black RF coaxial cable, 75 ohm
- One set of Audio (red and white tips) and Video (yellow tips) cables
- This Owner's Manual and Quick Start Guide

DVD Disc Menus...

Some explanations in this manual describe DVD disc menus. DVD manufacturers set the menus, which vary among DVDs. Not all DVDs have menus. If the DVD has a menu, access it by pressing DVD, then DISC/VCR MENU on the remote control.
Details are on page 35.

DVD Player Setup Menu...

Some instructions explain how to use the DVD player's setup menu to set up features of the DVD player or a DVD. Access the DVD player menu by pressing SYSTEM/MENU on the remote control when playback is stopped. Even if a feature is set in the DVD player's menu, it may not be available if the current DVD does not include that feature.

Available Disc Features...

All features described in this manual are not available on every disc. If the feature is not available on the disc, you cannot use the DVD/VCR to make it available. An "X" will appear in the top right corner of the TV screen if you try to access a feature that is not currently available.

Playable Discs and Video Cassettes 7

Playable Discs

The DVD player will play Digital Video Discs (DVDs); finalized Digital Video Discs Rewritable (DVD+RW); Video Compact Discs (VCDs); Audio Compact Discs (CDs); finalized Compact Discs Recordable (CD-R) and Compact Discs Rewritable (CD-RW).
To play a DVD, make sure it meets the requirements for Region Codes and Color Systems as described below. Discs that have the following logos will play on the DVD player. Other disc types are not guaranteed to play in the DVD/VCR.
On a Super Audio CD, only the sound on the normal CD layer can be heard. The sound on the high-density Super Audio CD layer cannot be heard.

- Do not stand the unit up vertically. Install the unit in a horizontal and stable position.
- Be sure to remove the disc and unplug the AC power cord from the outlet before carrying the unit.

DVD | DVD+R | DVD+RW | Video CD | Audio CD | CD-R | CD-RW | MP3 files

DVD is a trademark of DVD Format/Logo Licensing Corporation.

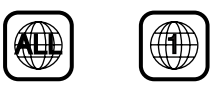
Windows Media is a trademark of Microsoft Corporation.

This unit is not compatible with Multiple Bit Rate
(MBR:a file that contains the same content encoded at several different bit rates).

ABOUT THE PBC FUNCTION OF VIDEO CD
This unit can play Video CD 1.1 (without PBC) and 2.0 (with PBC).
With version 2.0 (with PBC), you can use interactive menu (e.g., playlists) on the TV screen.
When playing a Video CD with PBC, some operations cannot be performed unless the PBC function is cancelled temporarily. See page 35 for more details.

Region Codes

DVDs must be labeled for ALL regions or for Region 1 in order to play on this DVD player. You cannot play DVDs that are labeled for other regions.
Look for the symbols below on your DVDs. If these region symbols do not appear on your DVD, you cannot play the DVD in this player.



The number inside the globe refers to a region of the world. Region 1 represents the United States, Canada, upper regions of North America, Bermuda, the U.S. Virgin Islands, and small regions near Australia.
A disc encoded in a specific region format can only play on DVD players with the same region code. For example, if a disc is labeled for Region 2, you cannot play the DVD on this player.

Color Systems

Different color systems are available throughout the world. The most common color systems are NTSC, which is used primarily in the United States and North America, PAL, and SECAM.
This DVD player will play both NTSC and PAL DVDs. You cannot play DVDs recorded in other formats. The color system of the DVD may be listed on the DVD or on the disc case. Your TV must have the NTSC and/or PAL color system as well.

Playable Video Cassettes

The VCR of this DVD/VCR has a High Quality (HQ) system and is compatible with existing Video Home System (VHS) equipment. Use only video cassettes that have the VHS mark. The use of other tapes may result in poor picture quality and excessive deposits on the
video heads, which may not be covered by the warranty if damage occurs.
The VCR also has a 19 micron head, which provides a better picture when you view tapes recorded in slow speed (SLP).

Unacceptable Discs

If you insert an unacceptable type of disc, a Disc Error message may appear on the TV screen. The following discs will not play on this DVD player.

- CD-ROM
- Video Single Disc (VSD)
- Unfinalized disc
- Compact Disc-Interactive (CD-I)
- DVD-ROM
- DVD contains MP3, Windows Media™ Audio or JPEG files
- DVD-RAM
- DVD-Audio

On the following disc, the sound may not be heard.

- Super Audio CD - Only the sound on the CD layer can be heard. The sound on the high-density Super Audio CD layer cannot be heard.

8 Hookups

Determining the best possible connection...

Your hookup will be determined primarily by your existing equipment, especially your TV. These guidelines describe which options have the best picture and sound quality. You will not use all the jacks on the DVD/VCR.

If your TV only has an RF-style jack, usually labelled Antenna In, RF In or 75 ohm, use the ANT-OUT jack of the DVD/VCR to connect to the TV. This hookup provides both audio and video in a single cable. Set your TV to channel 3 or 4 - the output channel of the DVD/VCR. This connection allows you to use both the DVD and VCR features. *See page 9.*

★★★★ If your TV has Component Video In jacks (which could be labelled Y CR CB, Y PR PB or YUV and may be green, blue and red), use the Component Video jacks (Y CB/PB CR/PR) for the best picture quality. If you use only this video connection, only the DVD picture will be available. To see DVD features on the TV, set the TV to its Component Video In channel. Component Video provides the best picture quality. *See page 12.*
Progressive Scan provides less flickering and higher image resolution than traditional (525i/480i or interlace) TV signals.
If your TV has Progressive Scan (525p/480p or progressive), connect the TV to the DVD/VCR's COMPONENT VIDEO OUT (Y CB/PB CR/PR) jacks. Set PROGRESSIVE to ON in the DVD/VCR's DISPLAY menu. *See pages 53-54.* P.SCAN will appear on the DVD/VCR's display panel. Set your TV to Progressive Scan also.
If your TV does not have Progressive Scan but has Component Video In jacks, connect them to the DVD/VCR's COMPONENT VIDEO OUT jacks (Y CB/PB CR/PR). Set PROGRESSIVE to OFF either in the DISPLAY menu or by pressing and holding PLAY ► (DVD) on the front of the DVD/VCR for more than 5 seconds. *See pages 53-54.*

★★★ If your TV has an S-Video In jack (which also may be labelled Y/C or S-VHS), use the S-VIDEO OUT jack for excellent picture quality. If you use only this video connection, only the DVD picture will be available. To see DVD features on the TV, set the TV to its S-Video In channel. *See page 12.*

★★ If your TV has a single yellow Video In jack (which also may be labelled CVBS, Composite or baseband), use the yellow DVD/VCR VIDEO OUT jack for good picture quality. This connection provides a picture for both the DVD player and the VCR. To see DVD or VCR features on the TV, set the TV to its Video In channel. *See page 10.*

★★★★ If you have a Stereo with a Coaxial Digital Audio In jack, this provides the clearest sound for the DVD player. Connect the DVD/VCR's COAXIAL DIGITAL AUDIO OUT jack to your Stereo for the best sound quality. If you use only this audio connection, only disc sound (no VCR) will be available. *See page 14.*

★★★ If digital audio connections are not possible, connect the DVD/VCR's red and white DVD/VCR AUDIO OUT jacks to the Audio In jacks of your Stereo or TV. This connection provides sound for both the DVD player and the VCR. *See pages 12-13.*

Before you begin...

- Refer to the manuals of your TV, Cable Box, Stereo or other devices as necessary. Note the style of jacks and connectors on the other equipment. Determine how to choose different Audio and Video In channels on your other equipment so you can see and hear the DVD/VCR material playing on the TV, Stereo, etc.
- Disconnect all equipment from the power outlets. Connect the equipment to power only after you have finished hooking up everything. Never make or change connections with equipment connected to power.

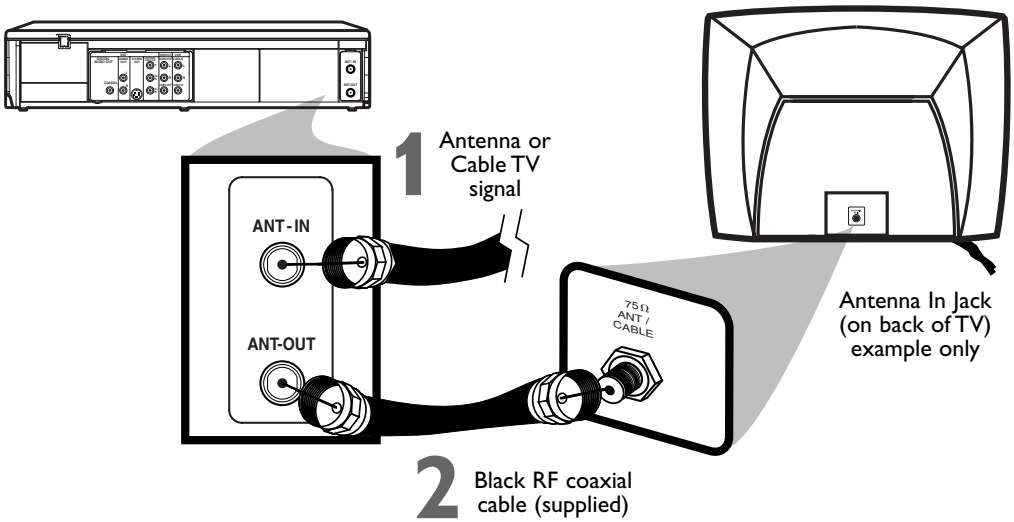
Remember...

- Set the TV to the correct Video In channel. Such channels may be called AUX or AUXILIARY IN, AUDIO/VIDEO or A/V IN, EXT1 or External In, etc. These channels often are located near channel zero (0). Or, your TV's remote may have a button or switch that selects the Video Input channel. See your TV manual for details. If you do not see the DVD or VCR playback on the TV, go to the lowest TV channel (01 or 02) and change channels downward until you see the DVD or VCR picture on the TV. Or, if your TV has only a single Antenna In jack and you are using the RF coaxial cable (as described on page 9), set the TV to channel 3 or 4.
  To help you find the right Audio/Video In channel, turn on the DVD/VCR. Press DVD to put the DVD/VCR in DVD mode. With no disc in the player, a large DVD Video logo will appear on the TV screen when you get the TV on the correct Audio/Video In channel or channel 3 or 4.
- Set the Stereo to the correct channel or "source" mode.
- Depending on your connection, you may need to purchase additional cables or adaptors. If your TV or monitor has BNC-type connectors, you will need an adaptor.
- **To use the VCR features, you must include a connection with the supplied yellow video cable and red/white audio cables or with the supplied RF coaxial cable.**

Once you determine the best option, find your choice on pages 9-14. Follow the steps for the hookup you choose. Then, go to page 16 to complete the first-time setup.

DVD/VCR to TV only

Simplest connection using only the supplied black RF coaxial cable
This connection will let you use the features of both the VCR and the DVD player.



1 **Disconnect the antenna or Cable TV signal from your TV and connect it to the ANT-IN (Antenna In) jack of your DVD/VCR.**

2 **Connect the supplied black RF coaxial cable to the ANT-OUT (Antenna Out) jack on the back of the DVD/VCR and to the ANTENNA IN jack on the TV.** The ANTENNA IN jack on the TV may be labelled TV IN, RF IN, 75Ω (ohm) or ANT-IN. See your TV owner's manual for assistance.

3 **Plug in the power cord of your TV. Turn on the TV and set it to channel 3 or 4.**

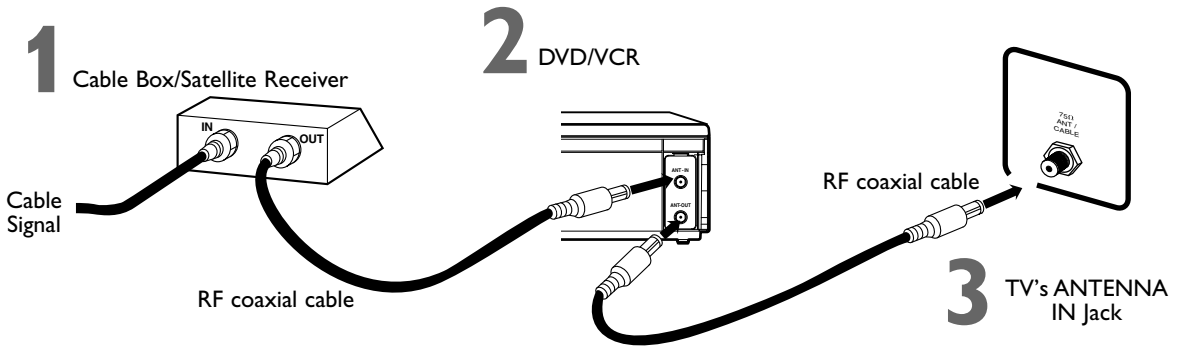
4 **Plug in the power cord of the DVD/VCR. You are ready to turn on the DVD/VCR. Go to page 16 before turning it on.**
The DVD/VCR's output channel is 3 when you purchase it. So, set your TV to channel 3 when the DVD/VCR is new.
If you cannot use channel 3 at your TV, you can change the DVD/VCR's output channel to channel 4. To do so, press VCR to put the DVD/VCR in VCR mode. VCR light will be on the front of the DVD/VCR. Insert a videotape and press PLAY ► to start playback. **During playback, press and hold (VCR) PLAY ► on the front of the DVD/VCR for 3-5 seconds.** Each time you do this, the DVD/VCR's output channel switches between 3 and 4, and the selected channel number appears on the display panel. Change your TV to channel 3 or 4 accordingly. (You cannot change the DVD/VCR's output channel while adjusting tracking manually. Press STOP ■ to stop playback and cancel manual tracking, then press PLAY ► to resume playing and change the output channel.)
There is not a channel 3/4 switch on the DVD/VCR (as customary with most VCRs).

10 Hookups (cont'd)

DVD/VCR to Cable Box or Satellite Receiver and TV

Using only basic RF coaxial cables

This connection will let you use the features of both the VCR and the DVD player.



Connections

1. **Connect a Cable TV or Satellite signal to the IN jack on the Cable Box/Satellite Receiver.**
2. **Use an RF coaxial cable (as the one supplied) to connect the OUT jack on the Cable Box/Satellite Receiver to the ANT-IN (Antenna In) jack on the DVD/VCR.**
3. **Use a second RF coaxial cable to connect the ANT-OUT (Antenna Out) jack on the DVD/VCR to the TV's Antenna In jack.**
4. **Plug in the power cord of your TV. Turn on the TV and set it to channel 3 or 4.**
5. **Plug in the power cord of the DVD/VCR. You are ready to turn on the DVD/VCR. Go to page 16 before turning it on.**

Remember...

There are two ways to connect your Cable Box/Satellite Receiver to the DVD/VCR. With the connection on this page:

- Select TV channels at the Cable Box/Satellite Receiver, not the DVD/VCR. To record or view TV channels, follow these steps:
  1) Press VCR to put the DVD/VCR in VCR mode. VCR light will appear on the front of the DVD/VCR.
  2) Press SKIP ►I/CH ▲ or SKIP I◄/CH ▼ to set the DVD/VCR to the Cable Box/Satellite Receiver output channel (03 or 04).
  3) Set the TV to the DVD/VCR's output channel (03 or 04). The DVD/VCR's output channel is channel 3 when the DVD/VCR is new. To change it from 3 to 4, press and hold (VCR) PLAY ► on the DVD/VCR for 3-5 seconds during tape playback. *For more details, see step 4 on page 9.*
  4) Select the channel you want to view/record at the Cable Box/Satellite Receiver.
- You may not view a channel other than the one you are recording.
- You can only program a timer recording for one channel at a time. Set your Cable Box/Satellite Receiver to the channel you want to record. When you enter the channel you want to record in a timer recording, select channel 03 or 04 (the Cable Box/Satellite Receiver output channel). (This is step 8 on page 28.) Leave the Cable Box/Satellite Receiver on for a timer recording.

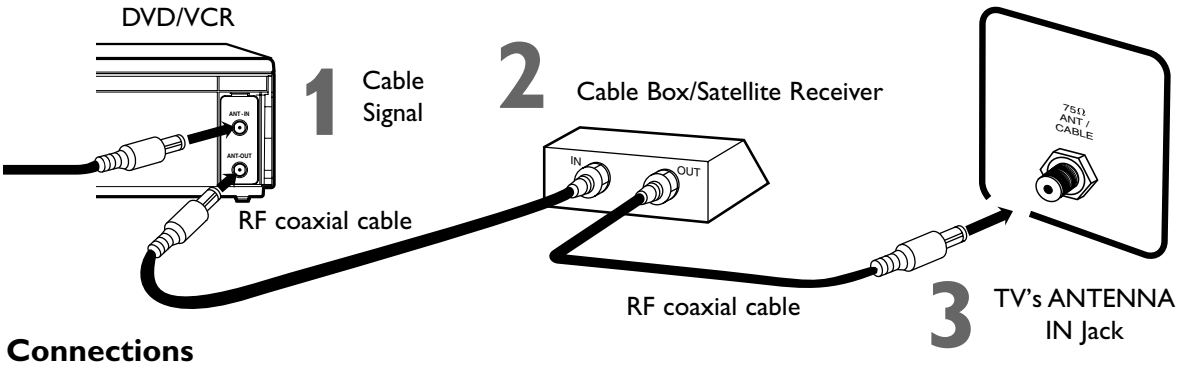
Helpful Hint

- If your Cable Box or Satellite Receiver has Audio and Video Out jacks, use audio and video cables to connect them to the VCR AUDIO IN and VIDEO IN jacks on the rear of the DVD/VCR. You will not need the RF coaxial cable connection between the Cable Box/Satellite Receiver and the DVD/VCR as described at step 2.

DVD/VCR to Cable Box or Satellite Receiver and TV

Using only basic RF coaxial cables

This connection will let you use the features of both the VCR and the DVD player.



Connections

1. **Connect a Cable TV or Satellite signal to the DVD/VCR's ANT-IN (Antenna In) jack.**
2. **Use an RF coaxial cable (as the one supplied) to connect the ANT-OUT (Antenna Out) jack on the DVD/VCR to the IN jack on the Cable Box/Satellite Receiver.**
3. **Use a second RF coaxial cable to connect the OUT jack on the Cable Box/Satellite Receiver to the ANTENNA IN jack on the TV.**
4. **Plug in the power cord of your TV. Turn on the TV and set it to channel 3 or 4.**
5. **Plug in the power cord of the DVD/VCR. You are ready to turn on the DVD/VCR. Go to page 16 before turning it on.**

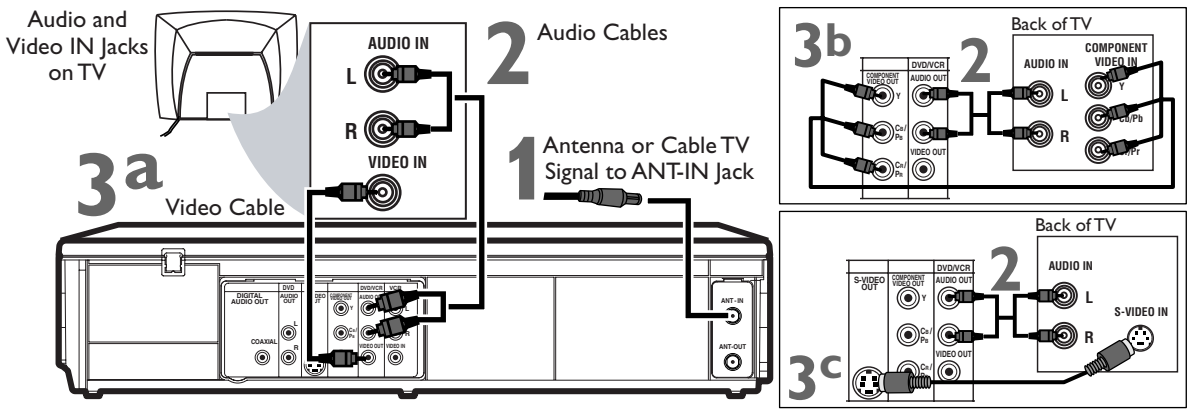
Remember...

There are two ways to connect your Cable Box/Satellite Receiver to the DVD/VCR. With the connection on this page:

- You may watch one channel while recording another. Follow these steps:
  1) Put the Cable Box/Satellite Receiver on the same channel as the DVD/VCR's output channel (03 or 04). The DVD/VCR's output channel is channel 3 when the DVD/VCR is new. To alternate it between 3 and 4, press and hold (VCR) PLAY ► on the front of the DVD/VCR for 3-5 seconds during tape playback. *For details, see step 4 on page 9.* Set the TV to the Cable Box/Satellite Receiver output channel (03 or 04).
  2) Press VCR to put the DVD/VCR in VCR mode. VCR light will appear on the front of the DVD/VCR.
  3) Press VCR/TV on the remote to choose VCR position.
  4) Press SKIP ►I/CH ▲ or SKIP I◄/CH ▼ to select the channel you want to record at the DVD/VCR. Press RECORD ● to start the recording.
  5) Press VCR/TV on the remote once to put the DVD/VCR in TV position.
  6) Select the channel you want to watch at the Cable Box/Satellite Receiver.
- When you play a tape or disc, make sure the Cable Box/Satellite Receiver is set to the DVD/VCR's output channel (03 or 04). Set the TV to the Cable Box/Satellite Receiver output channel (03 or 04).

12 Hookups (cont'd)

DVD/VCR to a TV that has Audio/ Video, Component Video or S-Video In jacks



1 **Connect the antenna or Cable TV signal to the ANT-IN (Antenna In) jack of your DVD/VCR.**

2 **Connect the red and white audio cables (supplied) to the red and white DVD/VCR AUDIO OUT jacks on the DVD/VCR and to the red and white AUDIO IN jacks on the TV.** Match the cable colors to the jack colors. If the TV has a single AUDIO IN jack, use the white audio cable to connect the DVD/VCR's white DVD/VCR AUDIO OUT (left) jack to the TV's AUDIO IN jack. You will not use the red cable. Or, purchase a "splitter" audio cable to go from the left/right AUDIO OUT jacks of the DVD/VCR to the TV's single AUDIO IN jack.

3a **Connect the yellow video cable (supplied) to the DVD/VCR VIDEO OUT jack on the DVD/VCR and to the VIDEO IN jack on the TV.** The VIDEO IN jack on the TV is usually yellow and may be labelled CVBS, Composite or Baseband video.

3b **Connect component video cable (not supplied) to the COMPONENT VIDEO OUT jacks on the DVD/VCR and to the COMPONENT VIDEO IN jacks on the TV.** The Component Video In jacks on the TV are usually red, blue and green.

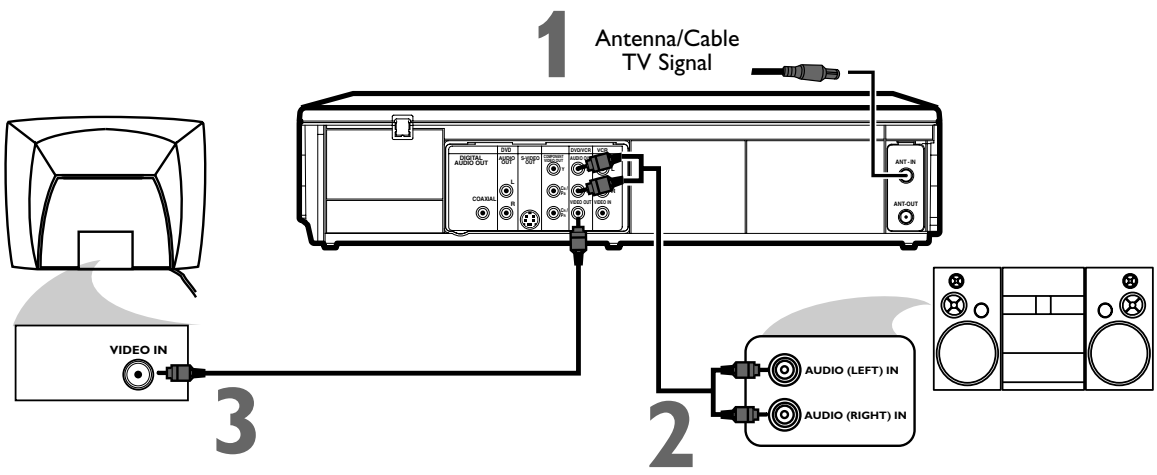
3c **Connect an S-Video cable (not supplied) to the S-VIDEO OUT jack on the DVD/VCR and to the S-VIDEO IN jack on the TV.**

The connections 3b and 3c only supply video (picture) for the DVD player of the DVD/VCR. Therefore, in order to use the VCR features or view TV channels at the DVD/VCR, you still need to either connect the RF coaxial cable between the ANT-OUT jack of the DVD/VCR and the TV's Antenna In jack, or connect the yellow video cable. To connect the supplied RF coaxial cable, see step 2 on page 9. To connect the supplied yellow video cable, see step 3a.

4 **Connect the power cords of the TV and the DVD/VCR to a power outlet. Turn on the TV and set it to the correct Video In channel.** If you are using the RF coaxial cable for VCR playback, choose channel 3 or 4 at the TV. If you are using the yellow video cable for VCR playback, choose the Video In channel at your TV. To find the correct Video In channel, go to your lowest TV channel and change channels downward until you see VCR playback on the TV screen. To help you find the right Video In channel, turn on the DVD/VCR. Press DVD to put the DVD/VCR in DVD mode. With no disc in the player, a large DVD Video logo will appear on the TV screen when you get the TV on the correct Video In channel.

5 **You are ready to turn on the DVD/VCR. Go to page 16 to complete the first-time setup.**

DVD/VCR to a TV and a Stereo



1 **Connect the antenna or Cable TV signal to the ANT-IN (Antenna In) jack of your DVD/VCR.**

2 **Connect the supplied red and white audio cables to the red and white DVD/VCR AUDIO OUT jacks on the DVD/VCR and to the red and white AUDIO IN jacks on the Stereo.** Match the cable colors to the jack colors.

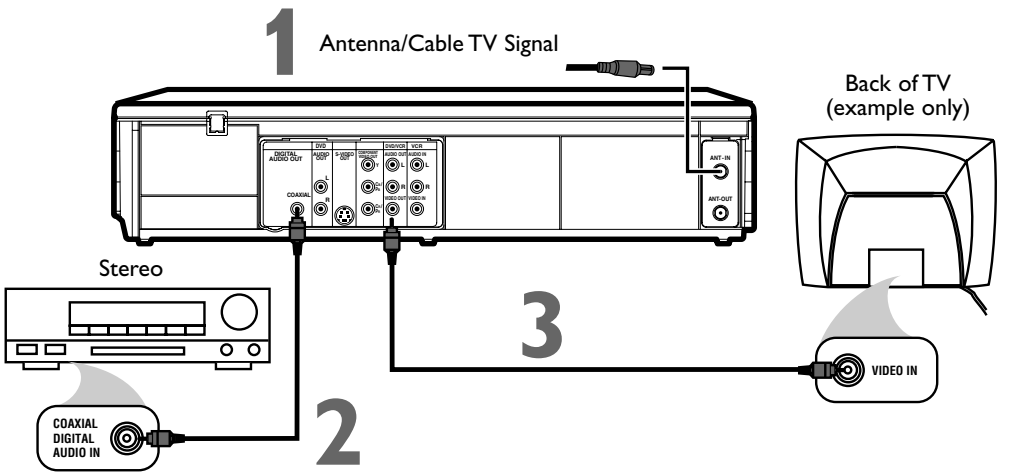
3 **Connect the supplied yellow video cable to the DVD/VCR VIDEO OUT jack on the DVD/VCR and to the VIDEO IN jack on the TV.** To use Component Video cable or S-Video cable instead for the DVD player, see page 12. You will still need the yellow video cable or RF coaxial cable for VCR features.

4 **Connect the power cords of the DVD/VCR, TV and Stereo to a power outlet. Turn on the TV and set it to the Video In channel.** Or, simply go to your TV's lowest channel (02 or 03) and continue changing channels downward at the TV until you see VCR or DVD playback on the TV screen.
To help you find the right Video In channel at the TV, turn on the DVD/VCR. Press DVD to put the DVD/VCR in DVD mode. With no disc in the player, a large DVD Video logo will appear on the TV screen when you get the TV on the correct Video In channel.
Turn on the Stereo and set it to the correct Auxiliary or Source mode. Check your Stereo manual for details.

5 **You are ready to turn on the DVD/VCR. Go to page 16 before turning on the DVD/VCR.**

14 Hookups (cont'd)

DVD/VCR to a TV and to a Stereo that is Dolby Digital-compatible Using Digital Audio connections



1 **Connect the antenna or Cable TV signal to the ANT-IN (Antenna In) jack of your DVD/VCR.**

2 **Connect a coaxial digital audio cable (not supplied) to the DVD/VCR's COAXIAL DIGITAL AUDIO OUT jack and to the COAXIAL DIGITAL AUDIO IN jack on the Stereo.**
This digital audio connection only provides sound for the DVD player of the DVD/VCR. So, in order to use the VCR features or hear TV channels at the DVD/VCR, you still need to either connect the RF coaxial cable between the ANT-OUT jack of the DVD/VCR and the TV's Antenna In jack, or connect the supplied red/white audio cables. To connect the supplied RF coaxial cable, see step 2 on page 9. To connect the red/white audio cables, see step 2 on page 12.

3 **Connect the supplied yellow video cable to the yellow DVD/VCR VIDEO OUT jack on the DVD/VCR and to the VIDEO IN jack on the TV.** To use component video cable or S-Video cable instead for the DVD player, see page 12. You will still need the yellow video cable or RF coaxial cable for VCR features.

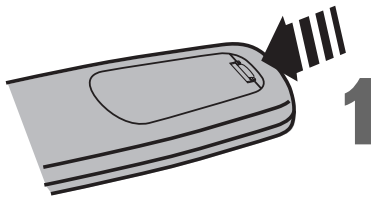
4 **Plug in the power cords of the Stereo, TV and DVD/VCR. Turn on the Stereo and select its Auxiliary IN channel. Turn on the TV and set it to the correct Video In channel.** Go to your TV's lowest channel (01 or 02) and change channels downward until you see DVD or VCR material on the TV screen. To help you find the right Video In channel on the TV, turn on the DVD/VCR. Press DVD to put the DVD/VCR in DVD mode. With no disc in the player, a large DVD Video logo will appear on the TV screen when you get the TV on the correct Video In channel.
Make sure PROGRESSIVE is OFF and P.SCAN does not appear on the DVD/VCR's display panel. Disable Progressive Scan either in the DISPLAY menu or by pressing and holding PLAY ► (DVD) on the front of the DVD/VCR for more than 5 seconds. *Details are on pages 8 and 54.*

5 **You are ready to turn on the DVD/VCR. Go to page 16 before turning on the DVD/VCR.**

Remember...

Some DVDs are recorded in Dolby Digital 5.1 channel Surround Sound. Select Dolby Digital 5.1 channel Surround Sound in the DVD disc menu. If Dolby Digital Surround Sound is not recorded on the disc, you will not have surround sound available.
If you connect the DVD/VCR to a Dolby Digital Stereo, set DOLBY DIGITAL to BITSTREAM in the DVD player's setup menu. *Details are on page 55.* If the DVD/VCR is not connected to a Dolby Digital-compatible Stereo, set DOLBY DIGITAL to PCM.
Incorrect settings may cause noise distortion and damage the speakers.

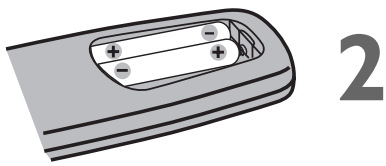
Putting Batteries in the Remote Control



1 **Remove the battery compartment lid** on the bottom of the remote control by pressing the tab, then lifting the lid.

2 **Place two AA batteries inside the battery compartment** with their + and – ends aligned as indicated.

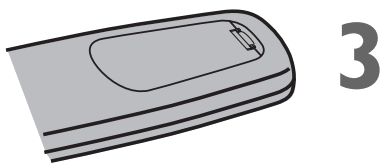
3 **Replace the battery compartment lid.**



Using the Remote Control

- Point the remote control at the DVD/VCR's remote sensor (see page 20) when using the remote to operate the DVD/VCR. Do not point the remote at the TV.
- Do not put objects between the remote and the DVD/VCR.

Recycling Guidelines/Battery Safety



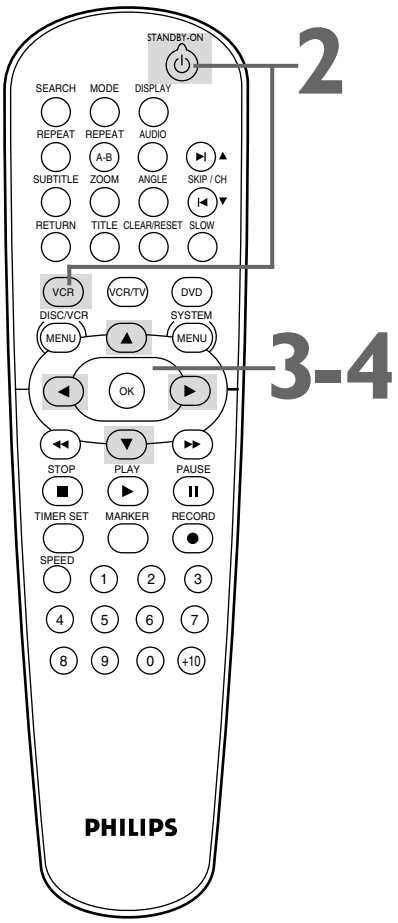
- Your new product and its packaging contain materials that can be recycled and reused. Specialized companies can recycle your product to increase the amount that needs to be properly disposed. Your product uses batteries that should not be thrown away when depleted but should be disposed of as small chemical waste. Please find out about the local regulations on disposal of your old product, batteries and packaging whenever you replace existing equipment.
- Battery Usage CAUTION - To prevent battery leakage that may result in bodily injury, property damage or damage to the unit:
  - Install ALL batteries correctly, with the + and – markings on the battery aligned as indicated on the unit.
  - Do not mix batteries, for example, old with new or carbon with alkaline.
  - Remove batteries when the unit will not be used for a long time.

16 First-time DVD/VCR Setup

Before turning on your DVD/VCR, make sure batteries are in the remote control and the DVD/VCR and TV are connected correctly. You cannot program channels if you are using a Cable Box or a Satellite Receiver.

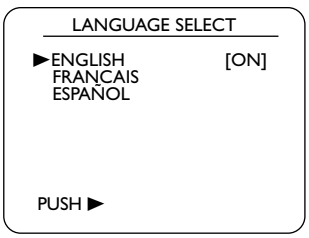
These menus may not appear if you have already turned on the DVD/VCR.

1 Turn on the TV.

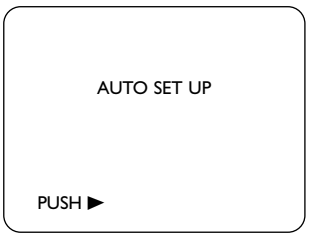


1 **Turn on the TV. Set it to channel 3 or 4 or its AUDIO/VIDEO IN channel,** depending on how you connected the DVD/VCR to a TV.

2 **Press VCR, then press STANDBY-ON** ⏻. VCR light will appear on the front of the DVD/VCR. The display shown below will appear.
These menus may not appear if you have already turned on the DVD/VCR. You may have turned on the DVD/VCR before to find the Audio/Video In channel of the TV, for example. If so, follow the steps on page 21 to set up channels and page 23 to select a language for the VCR menus.



3 **Press ▲ or ▼ to select ENGLISH, FRANCAIS (French) or ESPAÑOL (Spanish)** as the language for VCR on-screen displays and menus. **Then, press ►.** The display shown below will appear.



4 **Press ► to begin channel programming.** AUTO SETUP will flash on the TV screen during the channel search. The DVD/VCR will memorize all available channels. When channel programming is complete, the lowest available channel will appear on the TV.
These channels will be available when you want to watch TV while in VCR mode. To put the DVD/VCR in VCR mode, press VCR so VCR light appears. Use SKIP ►I/CH ▲ or SKIP I◄/CH ▼ to select memorized channels. To select non-memorized channels, use the Number buttons.

Helpful Hints

- To skip this feature and play a tape immediately, insert a tape with its record tab removed.
- If you like to skip step 4, press DISC/VCR MENU as soon as the search begins. The DVD/VCR will stop the channel search, and the VCR menus and displays will be in English.
- If you try to program channels when there is no antenna or Cable TV signal connected to the ANT-IN jack of the DVD/VCR, programming will stop. AUTO SET UP will stop flashing. Connect an antenna or Cable TV signal to the DVD/VCR's ANT-IN jack and press ► again.
- Repeat this process if the power fails.

Read and follow the steps below to play a tape.

1 **Turn on the TV. Set it to channel 3 or 4 or its AUDIO/VIDEO IN channel.** This depends on how you connected the DVD/VCR to a TV.
Details are on pages 8-14.

2 **With the DVD/VCR power off, insert a tape in the cassette compartment of the DVD/VCR.** VCR light will appear on the front of the DVD/VCR. If the tape's record tab has been removed, playback will start automatically.
If the DVD/VCR power is already on, press VCR to put the DVD/VCR in VCR mode if necessary. VCR light will appear on the front of the DVD/VCR.

3 **If playback does not start automatically, press VCR, then press PLAY ►.**

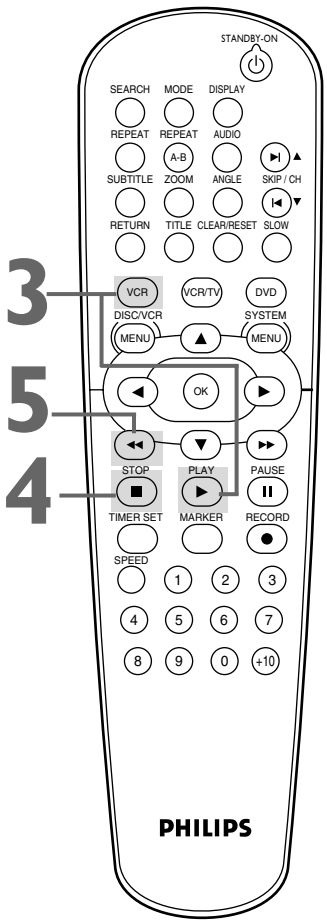
4 **Press STOP ■ to stop playback.**

5 **Press ◄◄ to rewind the tape.**

6 **After the tape stops, press STOP/EJECT ■⏏ on the front of the DVD/VCR to remove the tape.**

1 Turn on the TV.

2 Insert a tape in the DVD/VCR.



6 Press STOP/EJECT ■⏏ on the DVD/VCR.

Helpful Hints

- Other tape playback features are on pages 31-34.
- If AUTO REPEAT is ON, playback will begin when you insert a tape, even when the record tab is intact. *Details are on page 31.*
- You must connect the DVD/VCR to a TV using the RF coaxial cable or the audio/video cables in order to use the VCR features. These hookups are explained on pages 9 and 12.

18 Disc Playback

Before you begin, turn on the TV, Stereo and other equipment connected to the DVD/VCR. Make sure the TV and the Stereo (if applicable) are set to the correct channel.
Details are on pages 8-14.

1 **Press STANDBY-ON ⏻ to turn on the DVD/VCR.**

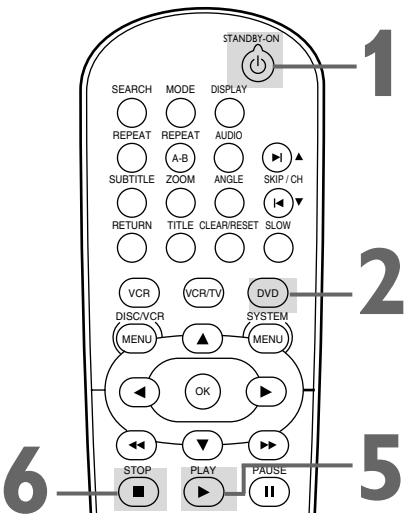
2 **Press DVD so DVD light appears on the front of the DVD/VCR.**

3 **Press OPEN/CLOSE ⏏ on the DVD/VCR to open the disc tray.**

4 **Place a disc into the tray.** If the DVD is recorded on only one side, place the disc in the tray with the label facing up and the shiny side facing down. Some DVDs are recorded on both sides. Make sure the label of the side you want to play is facing up.

5 **Press PLAY ▶ to close the tray.** The tray will close and playback will begin. If playback does not start automatically, press PLAY ▶ again.
If a DVD menu appears instead, see page 35.
To play MP3, Windows Media™ Audio or JPEG files, see page 46-47.
You also can close the tray by pressing OPEN/CLOSE ⏏.

6 **Press STOP ■ to stop playback.**



3 Press OPEN/CLOSE ⏏ **on the DVD/VCR.**

4 Insert a disc.

Helpful Hints

- An "**X**" may appear at the top right corner of the TV screen when you try a feature. Either the feature is not available on the disc, or the DVD/VCR cannot access the feature at this time. This does not indicate a problem with the DVD/VCR.
- If a disc is dirty or scratched, the picture may appear distorted or playback may stop. In such cases, remove the disc and turn off the DVD/VCR. Disconnect the power cord, then reconnect it. Clean the disc, then turn on the DVD/VCR again and reinsert the disc for playback.
- If a disc has multiple layers, the picture may freeze occasionally. This happens when the first layer switches to the second layer. This is not a malfunction.
- When the DVD or CD light appears on the display panel, the disc is loaded and ready for playback.
- When you press OPEN/CLOSE ⏏ or PLAY (DVD) on the front of the DVD/VCR when the power is off, the DVD/VCR will turn on in DVD mode. Otherwise, the DVD/VCR will turn on in the mode in which it was turned off.
- If you use PLAY ▶ to close the Disc tray, playback starts automatically. If you use OPEN/CLOSE ⏏ to close the disc tray, you have to press PLAY ▶ to start playback.

REMINDER: This DVD/VCR will play only certain discs. See page 7 for details.

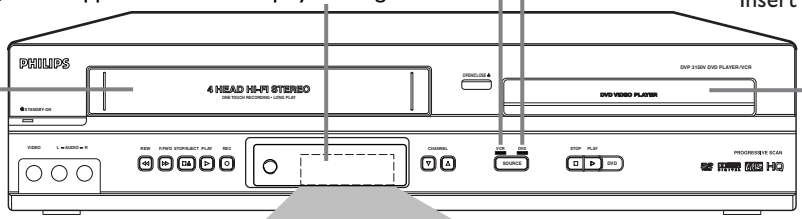
VCR light
This light appears when the DVD/VCR is in VCR mode. You can only watch videotapes or access VCR features and TV channels when VCR light is on. To make VCR light come on, press VCR on the remote control or SOURCE on the front of the DVD/VCR.

DVD light
This light appears when the DVD/VCR is in DVD mode. You can only watch DVDs when DVD light is on. To make DVD light come on, press SOURCE on the front of the DVD/VCR or DVD on the remote.

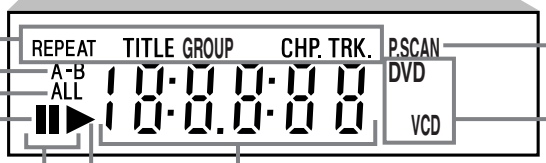
Cassette Compartment
Insert a video cassette here.

Display
Messages about current disc operations appear here. See Display Messages below.

Disc tray
Insert a disc here.



DVD Display Panel



Appears when a repeat function is active

Appears when A-B Repeat is on

Appears when ALL Repeat is on (Video CD, CD, MP3, Windows Media™ Audio and JPEG)

Appears when disc playback is paused

Appears during slow motion playback (DVD, Video CD)

Appears during disc playback

Displays the elapsed playing time of the current title or track; briefly displays a track, chapter or title number when playback begins.

Appears when Progressive Scan is active

Displays the current disc type
- DVD: DVD
- VCD: Video CD
- CD: Audio CD, MP3, Windows Media™ Audio, JPEG

VCR Display Panel

Indicates VCR position

Appears when a timer recording or an OTR has been set

Indicates a tape is in the DVD/VCR

Appears during recording; flashes when recording is paused

Appears if Repeat Playback is active

Appears if tape playback is paused or during slow motion tape playback

Indicates current time is P.M. There is no A.M. indication.

Appears during tape playback

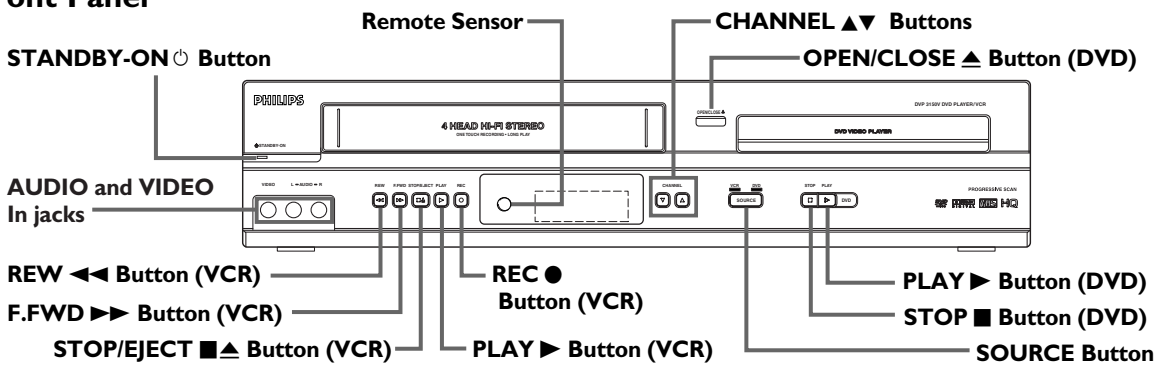
Indicates the elapsed playing time of a tape; also displays a channel number, tape speed, remaining time for an OTR or the current time

Display Messages

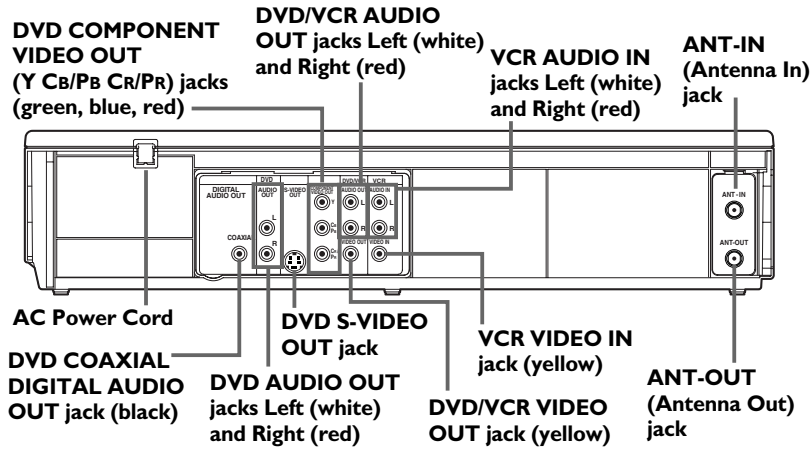
- - - - -	Appears after the disc tray closes if the tray is empty, if there is an error reading the disc, or if an unacceptable disc is installed.
OPEN	Tray is opening or is open.
CLOSE	Tray is closing.
Load	Disc is loading.
Pbc	Appears when Playback Control is active (Video CD).

20 Front Panel, Rear Panel and Remote Control

Front Panel

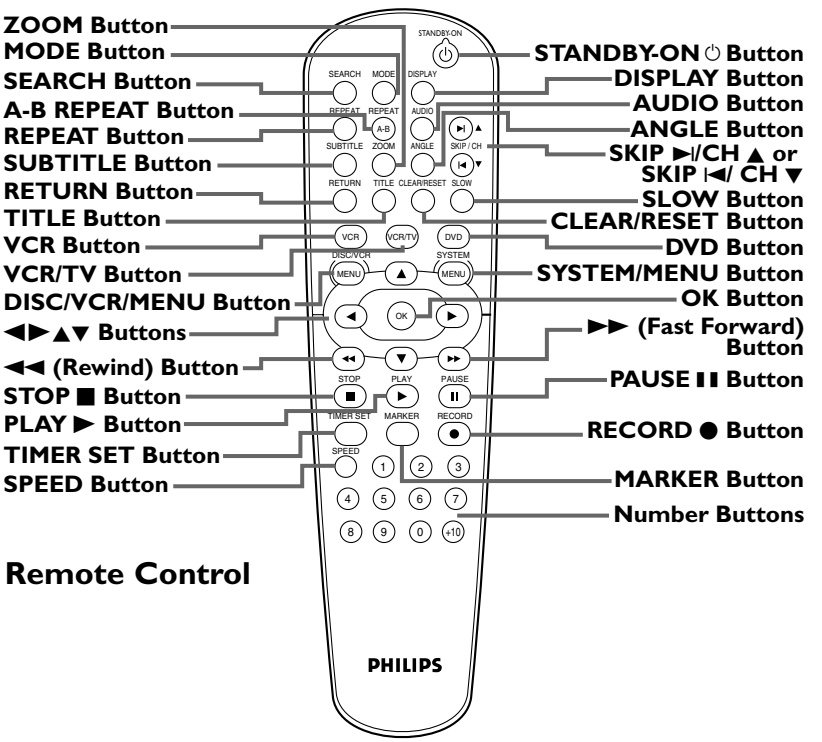


Rear Panel


DVD COMPONENT VIDEO OUT (Y CB/PB CR/PR) jacks (green, blue, red)
DVD/VCR AUDIO OUT jacks Left (white) and Right (red)
VCR AUDIO IN jacks Left (white) and Right (red)
ANT-IN (Antenna In) jack
AC Power Cord
DVD COAXIAL DIGITAL AUDIO OUT jack (black)
DVD AUDIO OUT jacks Left (white) and Right (red)
DVD S-VIDEO OUT jack
DVD/VCR VIDEO OUT jack (yellow)
VCR VIDEO IN jack (yellow)
ANT-OUT (Antenna Out) jack

Helpful Hint

- The DVD S-VIDEO OUT, DVD COMPONENT VIDEO OUT, DVD AUDIO OUT and DVD COAXIAL DIGITAL AUDIO OUT jacks are only useful in DVD mode. To have sound and picture in VCR mode, you must connect either the RF coaxial cable or the audio/video cables supplied. *Details are on pages 9 and 12.*



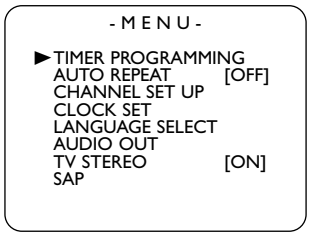
Remote Control

Helpful Hints

- For DVD player features, press DVD before pressing other buttons. To put the DVD/VCR in DVD mode, press DVD or SOURCE so DVD light appears on the front of the DVD/VCR.
- For VCR features, press VCR before pressing any other buttons. To put the DVD/VCR in VCR mode, press VCR or SOURCE so VCR light appears on the front of the DVD/VCR.

Although your DVD/VCR may automatically memorize the channels you receive when you turn it on for the first time, you can set up the channels again.

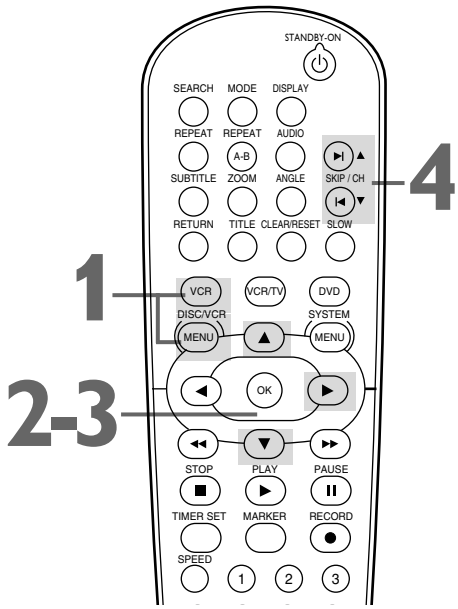
1 **Press VCR, then press DISC/VCR MENU** so MENU appears. If the clock has never been set, the CLOCK SET menu may appear when you press DISC/VCR MENU. If so, follow the instructions from step 3 on page 22.



2 **Press ▲ or ▼ to select CHANNEL SET UP. Then, press ►.**

3 **Press ▲ or ▼ to select AUTO SET UP. Then press ►.**

4 AUTO SET UP will flash while the DVD/VCR sets up the available channels. When setup is complete, the lowest available channel will appear on the TV.
Now when you **press SKIP ►I/CH ▲ or SKIP I◄/CH ▼**, you will scan only through available channels. You still can select any channel using the Number buttons.



Adding/Deleting Channels

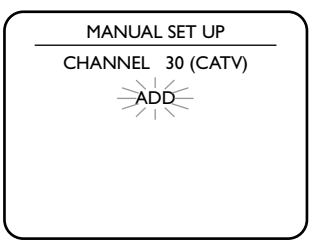
You may want to add or delete TV channels if your channel lineup changes or if you no longer watch some channels.

1 **Follow the steps 1-2 above.**

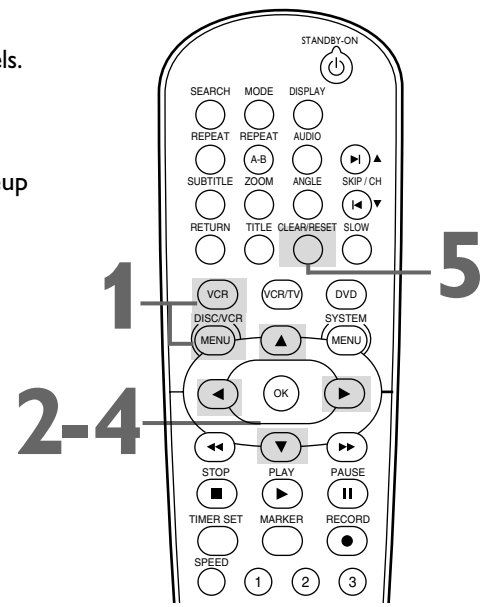
2 **Press ▲ or ▼ to select MANUAL SET UP. Then press ►.**

3 **Press ▲ or ▼ until the channel number you want to add or delete appears on the screen.**

4 **Press ◄ or ► so ADD or DELETE flashes on the screen.**



5 **While your choice is flashing, press CLEAR/RESET.** The channel you added or deleted will be the current channel. Added channels are available when you flip through channels using SKIP ►I/CH ▲ and SKIP I◄/ CH ▼. You still can select deleted channels with the Number buttons.



Helpful Hints

- You cannot program channels if you are using a Cable Box or Satellite Receiver.
- If you have an antenna, channels 2-69 will be possible. If you have Cable TV, channels 1-125 will be possible.
- To stop Channel Setup, press DISC/VCR MENU while AUTO SET UP is flashing.

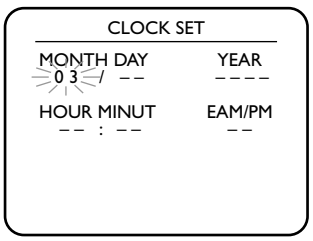
22 Clock (VCR)

Follow these steps to set the VCR clock. Make sure:

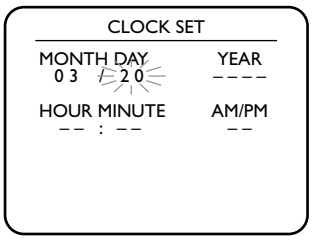
1 **Press VCR, then press DISC/VCR MENU** so MENU appears. If the clock has never been set, the CLOCK SET menu may appear when you press DISC/VCR MENU. If so, follow the instructions from step 3 on this page.

2 **Press ▲ or ▼ to select CLOCK SET. Then, press ►.**

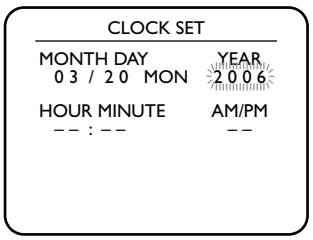
3 **While the MONTH space is flashing, press ▲ or ▼ until the month appears. Then, press ►.**



4 **While the DAY space is flashing, press ▲ or ▼ until the day appears. Then, press ►.**



5 **While the YEAR space is flashing, press ▲ or ▼ until the year appears. Then, press ►.** The day of the week will appear automatically.

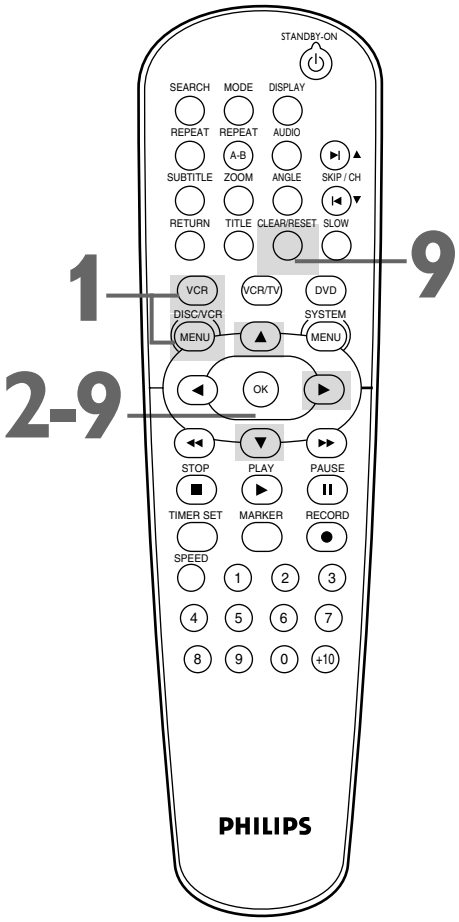


6 **While the HOUR space is flashing, press ▲ or ▼ until the hour appears. Then, press ►.**

7 **While the MINUTE space is flashing, press ▲ or ▼ until the minute appears. Then, press ►.**

8 **While the AM or PM space is flashing, press ▲ or ▼ to point to AM or PM.**
Your selection will flash on the screen in the AM/PM space.

9 **Press CLEAR/RESET or ► to start the clock.**

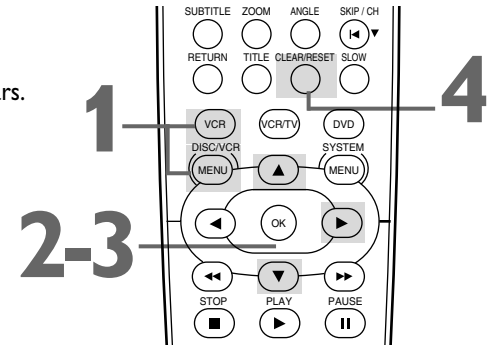


Helpful Hints

- If the clock has never been set, the CLOCK SET menu may appear when you press DISC/VCR MENU. If so, follow the instructions from step 3 above.
- Press DISPLAY until the time appears on the TV screen.
- Power failures of more than 30 seconds can erase the clock setting.
- To reset the clock, follow steps 1-2. Select the information you want to change using ◄ or ►. When the information is flashing, use ▲ or ▼ to enter the correct information. Press CLEAR/RESET to set the clock.

Language (VCR) 23

Follow the steps below to change the language of the VCR on-screen displays and menus.



1 **Press VCR, then press DISC/VCR MENU** so MENU appears.

```
- M E N U -

►TIMER PROGRAMMING
 AUTO REPEAT          [OFF]
 CHANNEL SET UP
 CLOCK SET
 LANGUAGE SELECT
 AUDIO OUT
 TV STEREO            [ON]
 SAP
```

2 **Press ▲ or ▼ to choose LANGUAGE SELECT, then press ►.**

3 **Press ▲ or ▼ to choose ENGLISH, FRANCAIS (French) or ESPAÑOL (Spanish).**

```
LANGUAGE SELECT

►ENGLISH              [ON]
 FRANCAIS
 ESPAÑOL
```

4 **Press CLEAR/RESET to remove the menu.**

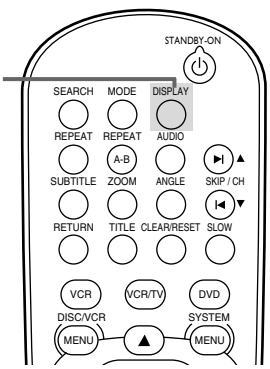
Helpful Hint

- If you select FRANCAIS (French), or ESPAÑOL (Spanish) and need English:

1) Press DISC/VCR MENU so MENU appears.
2) Press ▼ to choose SELECTION LANGUE or SELEC. IDIOMA, then press ►.
3) Press ▲ or ▼ to select ENGLISH.
4) Press CLEAR/RESET.

VCR Status Displays

You may access status displays by pressing DISPLAY. The displays may include the current time, channel and other information.



1 **Press DISPLAY.** The COUNT display will appear for 5 seconds. After 5 seconds, only the real-time tape counter will appear. This counter shows you the elapsed playing time of the tape (from the point at which the counter was set to 0). The counter also will appear on the display panel on the front of the DVD/VCR.

2 **Press DISPLAY again.** The CLOCK display will appear for 5 seconds. After 5 seconds, only the time will appear (the clock must be set). (If you are watching TV, the channel number and the availability of stereo or second audio will also appear.) The time also will appear on the display panel on the front of the DVD/VCR.

```
STOP

SLP          0:12:34        HIFI
```

```
STOP                    5:40 PM
                         CH 02
                       STEREO
                          SAP

SLP
```

3 **Press DISPLAY again to remove all the displays.**

Helpful Hints

- If the channel you select has no broadcast, the screen will be solid blue.
- You cannot access a status display when viewing a still picture, during slow motion, or during forward and reverse searching.
- Channel numbers appear on the screen for a few seconds each time you change channels.

24 Videotape Recording

Read and follow the steps below to record a television program onto a videotape.

- Before you begin, make sure the DVD/VCR is in VCR mode. Press VCR so VCR light appears on the front of the DVD/VCR.

1 **Turn on the TV and set it to channel 3 or 4 or the Video In channel.** If you connected the DVD/VCR to the TV using the supplied audio and video cables, select your TV's Video In channel. *Details are on page 12.*
If you connected the DVD/VCR to the TV using the supplied RF coaxial cable, choose channel 3 (or 4) at the TV. *Details are on pages 9-11.*

2 **Insert a tape with its record tab intact into the cassette compartment of the DVD/VCR.** If tape playback begins, press STOP ■.

3 **Press SPEED until the desired tape speed (SP or SLP) appears briefly on the screen.** *Details about tape speed are on page 60.*

4 **Press SKIP ▶I/CH ▲ or SKIP I◀/CH ▼ or the Number buttons to select the TV channel to record.**

5 **Press RECORD ● to start recording.** "REC" will appear on the DVD/VCR's display panel.

6 **To pause the recording, press PAUSE ❚❚ once.** "REC" will flash. **To resume recording, press RECORD ● or press PAUSE ❚❚ again.** "REC" will reappear.

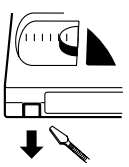
7 **To stop recording, press STOP ■.**

Recording Prevention

Video cassettes have record tabs to ensure that recordings are not accidentally erased.

1 **To prevent recording, break off the tab with a screwdriver.**

2 **To allow recording, cover the hole with clear tape.**

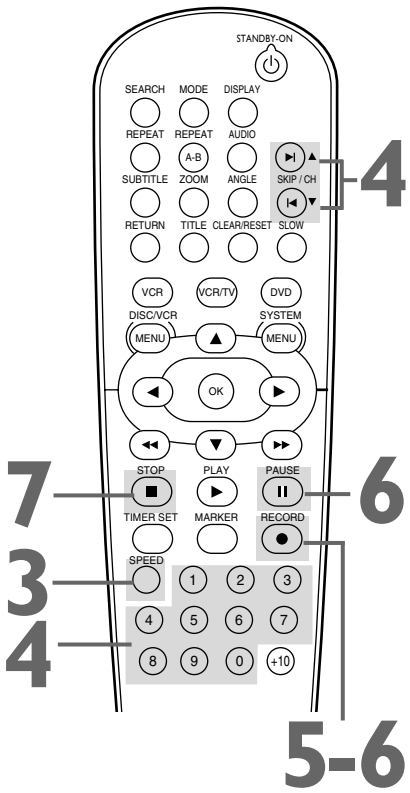


Remove the tab to prevent recording.

Cover the hole to allow recording.

1 Turn on the TV.

2 Insert a tape in the DVD/VCR.



Helpful Hints

- Other recording options are on pages 25-30.
- The VCR will record in a preset volume.
- Pause will switch to Stop after 5 minutes to protect the VCR and the tape from damage. When a recording is paused, review the pause time remaining with the ■ marks on the screen. Each ■ mark equals 1 minute remaining. During the last minute of paused recording, the ■ mark will flash.
- If any menu is on the TV screen, RECORD ● on the remote does not function. Press CLEAR/RESET to remove the menu. Then, press RECORD ●. Or, use REC ● on the front of the DVD/VCR.

Recording One Channel/Watching Another 25

1 **Press VCR, then press RECORD ● to record the current TV channel.** *Details are on page 24.*

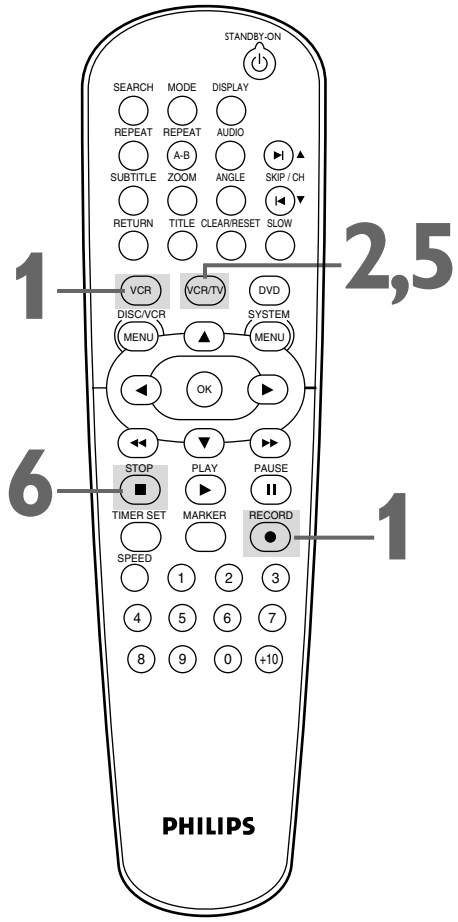
2 **Press VCR/TV once to put the DVD/VCR in TV position.** The VCR light will disappear from the DVD/VCR's display panel.

3 **Use the TV remote control to select the channel you want to watch at the TV.**

4 **To return to the channel being recorded, use the TV remote control to return to channel 03 or 04 at the TV.** *Details are on page 9.* Or, if you connected the DVD/VCR to the TV using audio and video cables, return to the TV's correct Video In channel. *Details are on page 12.*

5 **Press VCR/TV on the DVD/VCR remote control to put the DVD/VCR in VCR position.** (The VCR light will appear in the DVD/VCR's display panel again.) The channel being recorded will appear on the TV screen.

6 **Press STOP ■ to stop the recording.**



3 Select the channel you want to watch at the TV.

4 Reselect channel 03, 04 or Video In at the TV.

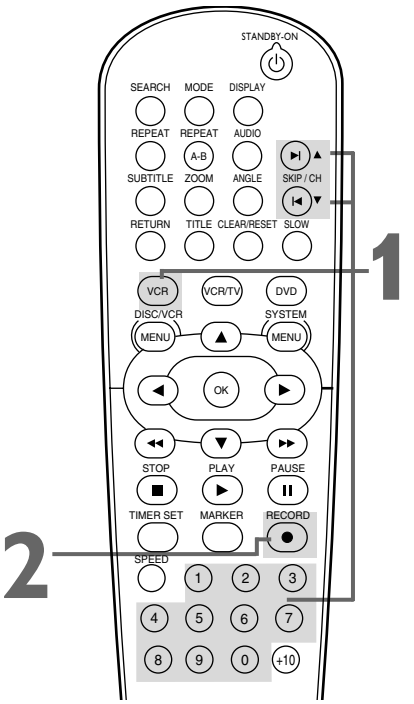
Helpful Hint

- If you use a Cable Box or Satellite Receiver, you may not be able to watch one channel while recording another. See pages 10-11 for details.

26 One-Touch Recording

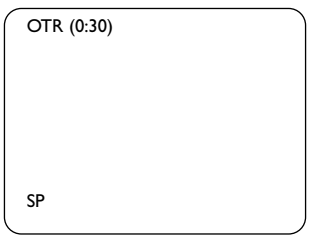
One-Touch Recording (OTR) lets you set a timed recording 30 minutes to 8 hours long of the current TV channel. Before you begin:

- Place the DVD/VCR in VCR mode. Press VCR so VCR light appears on the front of the DVD/VCR.
- Select a recording speed (SP, SLP) with SPEED.
- Put a videotape in the cassette compartment. Make sure the tape's record tab is intact and the tape is long enough to record the program(s).



1 **Press VCR, then press** SKIP ►I/CH ▲ or SKIP I◄/CH ▼ **or the Number buttons to select the channel you want to record.**

2 **Press RECORD ● repeatedly until the desired recording length (30 minutes to 8 hours) appears on the TV screen.** Recording will begin. "REC" and "⏲" will appear on the DVD/VCR's display panel.



When an OTR ends

The DVD/VCR will turn off and "⏲" on the DVD/VCR's display panel will flash indicating that the recording is complete, or it may switch to DVD mode automatically. Press TIMER SET to use the DVD/VCR as usual.

Stopping an OTR

To stop an OTR before recording is finished, press STOP ■ on the remote control or STOP/EJECT ■⏏ (VCR) on the front of the DVD/VCR.

To cancel the OTR but continue recording, press RECORD ● repeatedly until REC appears in the upper left corner of the TV screen, and "⏲" disappears.

When an OTR finishes, the DVD/VCR will either switch to DVD mode or turn itself off. If it changes to DVD mode, press STANDBY-ON ⏻ to turn it off.

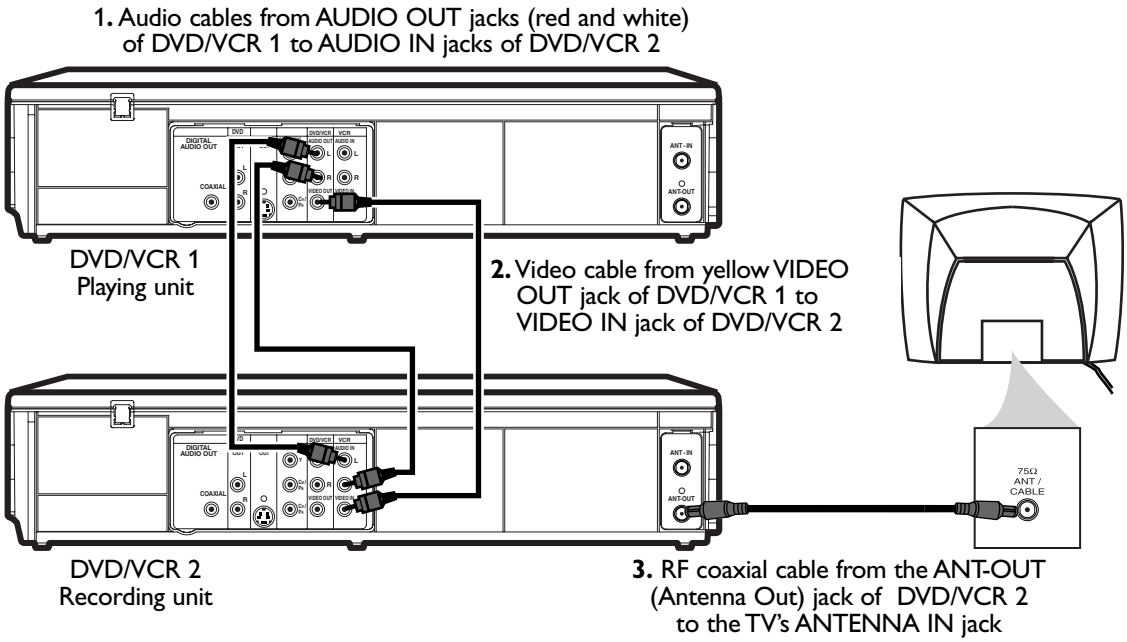
After an OTR, "⏲" flashes because the VCR is still on standby for timer recordings. Press TIMER SET on the remote or STOP/EJECT ■⏏ (VCR) on the DVD/VCR to cancel timer standby and use the VCR normally again.

Helpful Hints

- The remaining recording time will appear on the display panel during an OTR. Press DISPLAY to see it on the TV screen.
- To change the recording length while an OTR is in progress, press RECORD ● repeatedly.
- You cannot pause an OTR.
- If the preset time for a timer recording comes up during an OTR, the OTR has priority. The timer recording will not take place.
- If the end of the tape is reached during an OTR, the VCR will stop recording, eject the tape, and switch to DVD mode or turn off.
- If one or more Timer recordings are on standby when one OTR ends, the DVD/VCR will turn off automatically and "⏲" will appear on the DVD/VCR's display panel indicating that it is now ready for another timer recording.

Rerecording (Tape Duplication) 27

These instructions show you how to copy videotapes. The illustration uses two DVD/VCRs. Other VCRs or Camcorders may operate differently.


1. Audio cables from AUDIO OUT jacks (red and white) of DVD/VCR 1 to AUDIO IN jacks of DVD/VCR 2
DVD/VCR 1
Playing unit
2. Video cable from yellow VIDEO OUT jack of DVD/VCR 1 to VIDEO IN jack of DVD/VCR 2
DVD/VCR 2
Recording unit
3. RF coaxial cable from the ANT-OUT (Antenna Out) jack of DVD/VCR 2 to the TV's ANTENNA IN jack
75Ω ANT / CABLE

1 **Make the connections shown above.**

2 DVD/VCR 1 will play your tape. **Put a prerecorded tape into the cassette compartment of DVD/VCR 1.** Press VCR to put the unit in VCR mode if necessary.

3 DVD/VCR 2 will record your tape. **Insert a blank tape in the cassette compartment of DVD/VCR 2.** Press VCR to put the unit in VCR mode if necessary.

4 **Turn on the TV and set it to channel 03 or 04** (the RF output channel of DVD/VCR 2). To determine the DVD/VCR's output channel, see step 4 on page 9.

5 **Point the remote control at DVD/VCR 2. Press Number buttons 0, 0, 1 or 0, 0, 2.** *(See Helpful Hints to the right.)*

6 **Press SPEED to select SP or SLP at DVD/VCR 2.**

7 **Press PLAY ► (VCR) on the front of DVD/VCR 1 and REC ● on the front of DVD/VCR 2 at the same time.**
To stop recording, press STOP/EJECT ■▲ (VCR) on DVD/VCR 1, then press STOP/EJECT ■▲ (VCR) on DVD/VCR 2.

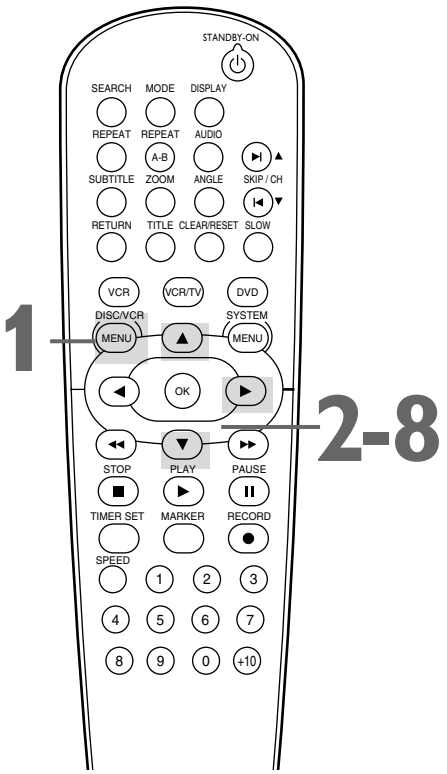
Helpful Hints

- If you use the AUDIO and VIDEO IN jacks on the back of DVD/VCR 2, press Number buttons 0, 0, 1 at step 5. L1 will appear on the TV screen.
- If you use the AUDIO and VIDEO IN jacks on the front of DVD/VCR 2, press Number buttons 0, 0, 2 at step 5. L2 will appear on the TV screen.
- Unauthorized recording of copyrighted television programs, video tapes or other materials may infringe on the rights of copyright owners and violate copyright laws.
- If a program has copyright protection, it may not be recorded clearly.

28 Timer Recording

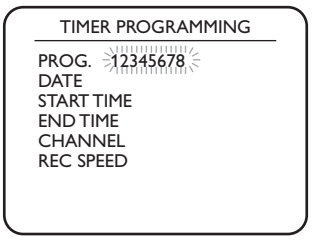
Follow the steps below to program the VCR of the DVD/VCR to record TV programs while you're away from home. Before you begin:

- Set up the TV channels at the DVD/VCR. *Details are on page 21.*
- Set the clock. *Details are on page 22.*
- Put a tape in the cassette compartment of the DVD/VCR. Make sure the tape's record tab is intact and the tape is long enough to record the program(s).
- Press VCR so VCR light appears on the front of the DVD/VCR.

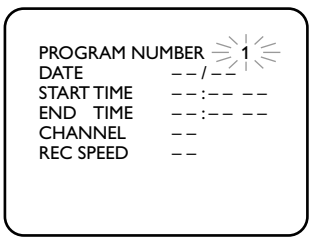


1 **Press DISC/VCR MENU so MENU appears.**

2 **Press ▲ or ▼ to select TIMER PROGRAMMING. Then, press ►.** Program numbers that do not have a timer recording stored will flash.



3 **Press ▲ or ▼ to select an empty program. Then, press ►.**



4 **Press ▲ or ▼ to select ONCE, DAILY or WEEKLY. Then, press ►.**

- ONCE - The VCR will record a TV program on any day you choose, up to 12 months away.
- DAILY - The VCR will record a TV program at the same time on the same channel every day, Monday through Friday.
- WEEKLY - The VCR will record a TV program at the same time on the same channel every week, for example, every Monday.

5 **To enter the recording date, press ▲ or ▼ until the month appears. Then, press ►. Next, press ▲ or ▼ until the day appears. Then, press ►.** The day of the week will appear. You cannot record more than one year in advance.

6 To enter the recording's start time, **press ▲ or ▼ until the hour appears. Press ►. Press ▲ or ▼ until the minute appears. Press ►. Finally, press ▲ or ▼ to point to AM or PM.** AM or PM will flash beside the start time. **Press ►.**

7 **Repeat the procedure in step 6 to set the recording's end time.**

8 **Press ▲ or ▼ until the channel number appears. Then, press ►.**

- If you are using a standard antenna/Cable TV hookup (as shown on page 9), select the channel of the TV program you want to record.

Helpful Hints

- You cannot access the TIMER PROGRAMMING menu at step 2 if the clock is not set. The CLOCK SET menu will appear. Follow the steps on page 22 to set the clock.
- Only programs that will air Monday-Friday can be recorded on a DAILY basis. If you select DAILY at step 4, then enter a Saturday or Sunday DATE at step 5, the correct program will not be recorded. The VCR will alter the recording date and record a different program than the one you intended.
- If you are recording from other equipment, set CHANNEL to L1 or L2 at step 8. If you connected the other equipment to the AUDIO and VIDEO In jacks on the front of the DVD/VCR, choose L2. If you connected the equipment to the AUDIO IN and VIDEO IN jacks on the back of the DVD/VCR, choose L1.
- Enter the information while the space is flashing.

- If you are recording from other equipment, select L1 or L2. To determine L1 or L2, refer to the Helpful Hints.
- If you are using a Cable Box/Satellite Receiver, select the Cable Box/Satellite Receiver output channel (03 or 04). Then, at the Cable Box/Satellite Receiver, select the channel you want to record. Leave the Cable Box/Satellite Receiver on for the timer recording. *Details are on page 10.*

9 **Press ▲ or ▼ to select a recording tape speed.** The arrow will appear beside your choice. The selected speed will flash beside REC SPEED. *Details about tape speed are on page 60.*

```
ONE TIME PROGRAM

PROGRAM NUMBER     1
DATE           05/03 WED
START TIME     07:30 PM
END   TIME     08:30 PM
CHANNEL        16
REC SPEED      SP
           ►   SP
               SLP
```

10 **Press CLEAR/RESET** to store the timer recording.

11 **Press TIMER SET.** The DVD/VCR will turn off and "⏲" will appear in the display panel. In some cases, the DVD/VCR will switch to DVD mode instead. You may use the DVD player during a timer recording.
If you want to use the VCR until time for the recording, don't press TIMER SET until a few minutes before the recording should start. Or, press TIMER SET only when you know you won't be using the VCR anymore (until after the recording). When "⏲" appears, you cannot put the DVD/VCR in VCR mode by pressing VCR or SOURCE. You must first press TIMER SET to cancel the timer recording temporarily. Then, you can use the VCR features again.

When a timer recording ends

The DVD/VCR will turn off and "⏲" on the DVD/VCR's display panel will flash indicating that the recording is complete. Or it may switch to DVD mode automatically. Press TIMER SET to use the DVD/VCR as usual.

Cancelling Timer Recordings

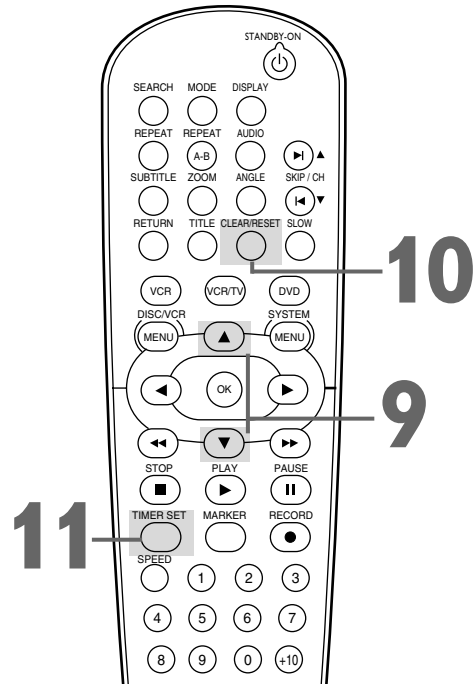
1 **Press VCR, then press DISC/VCR MENU** so MENU appears.

2 **Press ▲ or ▼ to select TIMER PROGRAMMING, then press ►.**

3 **Press ▲ or ▼ to find the program you want to cancel.**

4 **While the program number is flashing, press ◄ to clear all the information for that program.**

5 **Press CLEAR/RESET to remove the menu.**



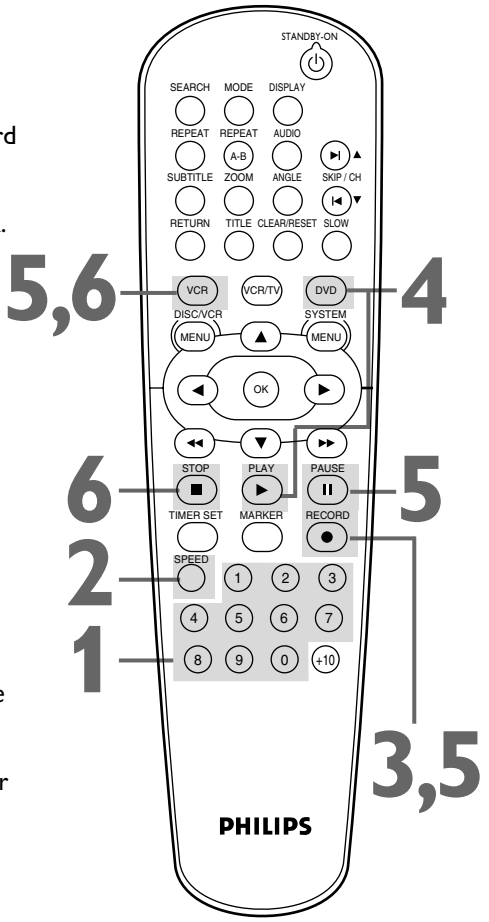
Helpful Hints

- To stop a started timer recording, press STOP/EJECT ■▲ (VCR) on the front of the DVD/VCR. (You cannot stop a started timer recording with STOP ■ on the remote.) ***More Helpful Hints are on page 62.***
- To change incorrect information, press ◄ or ► to choose the item you want to change. Press ▲ or ▼ to adjust the information.
- While a timer recording is set and "⏲" is on, pressing STOP/EJECT ■▲ (VCR) will turn on the DVD/VCR and/or cancel the timer recording. The "⏲" will disappear. Press STOP/EJECT ■▲ (VCR) again to remove the tape. Insert a tape and press TIMER SET to reset the timer recording.
- If there is no tape in the VCR when you press TIMER SET, "⏲" will flash. Insert a tape.
- If one or more Timer recordings are on standby when one timer recording ends, the DVD/VCR will turn off automatically and "⏲" will appear on the DVD/VCR's display panel indicating that it is now ready for another timer recording.

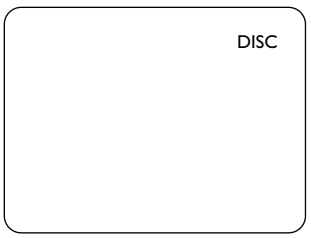
30 DVD to Videotape Duplication

Follow the steps below to copy a DVD to a videotape. **This will be possible only if the DVD is not copy protected.**
Before you begin:

- Put a videotape in the cassette compartment. Make sure the tape's record tab is intact and the tape is long enough to record the DVD.
- Put the DVD you want to copy in the disc tray.
- Press VCR so VCR light appears on the front of the DVD/VCR.
- Turn on the TV and set it to channel 3, 4 or its Video Input.



1 Point the remote control at the DVD/VCR. **Press Number buttons 0, 0, 3.** "DISC" will appear on the TV screen.



2 **Press SPEED until the desired tape speed (SP or SLP) appears briefly on the screen.** *Details about tape speed are on page 60.*

3 **Press RECORD ● to start recording.** "REC" will appear on the display panel.

4 **Press DVD. Press PLAY ► to play the disc.**

5 **To pause the recording, press VCR, then press PAUSE ❚❚ once.** "REC" will flash. **To resume recording, press RECORD ● or press PAUSE ❚❚ again.** "REC" will reappear.

6 **To stop recording, press VCR, then press STOP ■.**

Helpful Hints

- A timer recording is not possible during DVD to videotape duplication.
- You cannot copy a DVD to a videotape if you are using Progressive Scan. *Details are on page 14.*

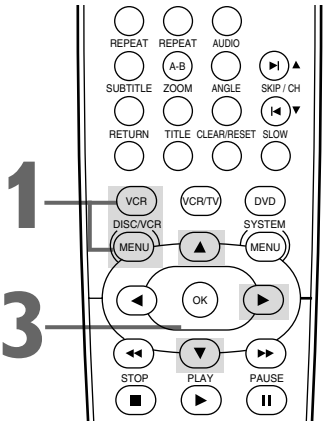
Repeat Playback 31

Follow the steps below to play a videotape repeatedly.

1 **Press VCR, then press DISC/VCR MENU** so MENU appears.

2 **Press ▲ or ▼ to select AUTO REPEAT.**

3 **Press ► so ON appears next to AUTO REPEAT.** Tape playback will begin immediately. AUTO REPEAT ► will appear on the TV screen briefly. (If you are fast forwarding or rewinding the tape, press CLEAR/RESET to remove the menu, then press PLAY ► to begin tape playback.) The tape will play to the end, rewind, then play again. (TV programming will appear on the screen while the tape is rewinding.)




```
- M E N U -

  TIMER PROGRAMMING
► AUTO REPEAT          [ON]
  CHANNEL SET UP
  CLOCK SET
  LANGUAGE SELECT
  AUDIO OUT
  TV STEREO            [ON]
  SAP
```

Helpful Hint

- To cancel Auto Repeat, follow steps 1-2. At step 3, press ► so OFF appears beside AUTO REPEAT. Press CLEAR/RESET.

Tape Counter

Follow the steps below to reset the VCR's real-time tape counter to 0 at a tape location you want to refer to later.

1 **Press VCR, then play, fast forward or rewind a tape to the location that you would like to refer to later. Press STOP ■ to stop the tape.**

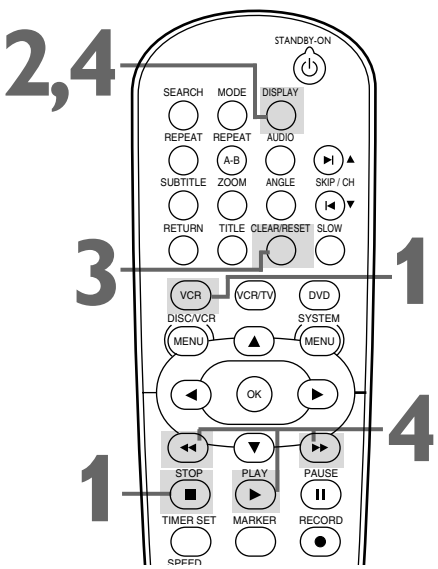
2 **Press DISPLAY to see the status display.**

```
STOP

SLP        1 : 23 : 45   HIFI
```

3 **While the counter is on the screen, press CLEAR/RESET to reset the counter to 0.**

```
STOP

SLP        0 : 00 : 00   HIFI
```

4 **When you later want to return to this point on the tape, press DISPLAY so you can see the counter (while tape playback is stopped). Press ◄◄ or ►►.** As the tape rewinds or forwards, watch the counter. When it reaches 0, **press PLAY ► to play the tape.**



Helpful Hints

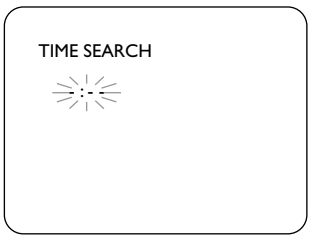
- You may only set the counter to 0 at one location at a time. Setting the counter to zero at a second location will erase the previous 0 setting.
- If you remove the tape, the counter will reset to 0 at the point at which you last stopped playback whenever you reinsert the tape.

32 Time Search, Index Search

Time Search

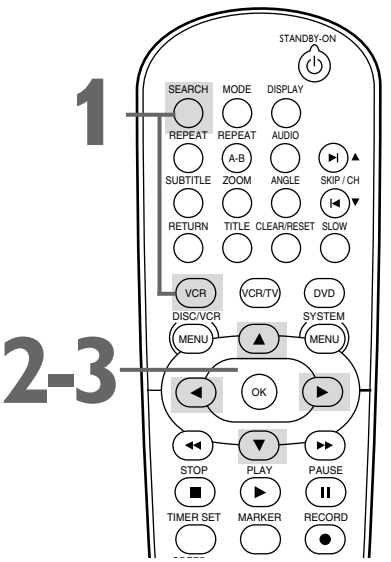
Follow the steps below to search forward or backward on a tape a specific length of time. There must be a tape in the cassette compartment.

1 **Press VCR, then press SEARCH until the TIME SEARCH screen appears.**



2 **Within 30 seconds, press ▲ or ▼ until your desired length of time appears.** Or, press and hold ▲ or ▼ until you reach the desired length of time.
You can set a Time Search for up to 9 hours and 59 minutes (9:59).

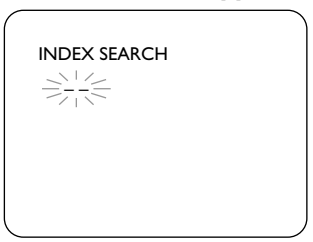
3 **Within 30 seconds, press ◄** (for a reverse search) **or ►** (for a forward search). The VCR begins rewinding or fast forwarding the tape. When the tape finishes rewinding or fast forwarding the time you specified, playback will begin.
The time will count down beneath TIME SEARCH during the search.
If the end of the tape is reached during the search, the search will stop and the tape may rewind. *Details are on page 33.*



Index Search

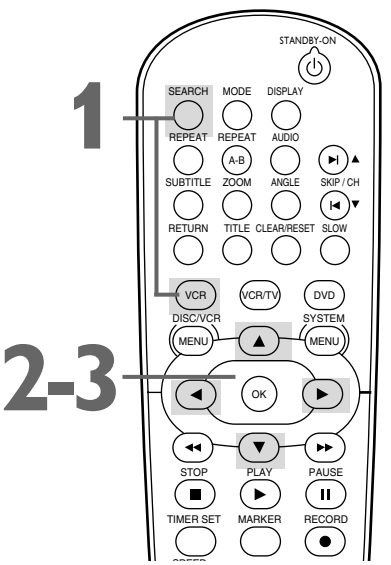
An Index Mark is made automatically at the beginning of each recording. Essentially, an Index Mark is a "bookmark." Find the start of a recording by following these steps.

1 **Press VCR, then press SEARCH until the INDEX SEARCH screen appears.**



2 **Within 30 seconds, press ▲ or ▼** until the number of programs you want to skip appears beneath INDEX SEARCH. Include the current program in your number.

3 **Within 30 seconds, press ◄** (for a reverse search) **or ►** (for a forward search). When the tape finishes rewinding or forwarding, playback will start. The program numbers will count down beneath INDEX SEARCH during the search.
If the end of the tape is reached during the search, the search will stop and the tape may rewind. *Details are on page 33.*
Recordings should be at least 1 minute long in SP speed, 2 minutes in LP, and 3 minutes in SLP. Otherwise, the Index Mark will not be available. *Details on tape recording speeds are on page 60.*



Helpful Hints

- Time Search and Index Search are not available during recording.
- To remove a Search display, press CLEAR/RESET.
- To cancel a search, press STOP ■ .

- Before you begin, press VCR so VCR light appears on the front of the DVD/VCR.

Forward and Reverse Searching (SP/LP/SLP) / Super High Speed Searching (LP/SLP)

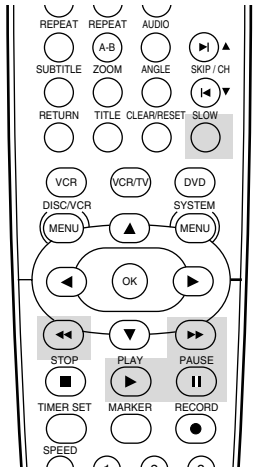
1. **During tape playback, press and release ►► or ◄◄.** A fast forward or reverse picture search will begin. **Press ►► or ◄◄, then press again.** The search speed will increase. Repeatedly pressing ►► or ◄◄ will switch between regular and high speed searching.
2. **To return to normal playback, press PLAY ►.**

Viewing a Still Picture

1. **During tape playback, press PAUSE ❚❚.** A still picture will appear on the screen.
2. **To advance the still picture one frame at a time, press PAUSE ❚❚ repeatedly.**
3. **To release the still picture and return to playback, press PLAY ►.**

Viewing a Slow Motion Picture

1. **During tape playback, press SLOW**. The tape will play in slow motion.
2. **To return to normal playback, press PLAY ►.**



Helpful Hints

- Slow and Still modes will switch to Stop mode after 5 minutes to protect the DVD/VCR and the tape from damage.
- SP/LP/SLP means this feature will work with tapes recorded in Standard Playback, Long Playback or Super Long Playback. LP/SLP means this feature will work with tapes recorded in Long Playback or Super Long Playback. Tape speed details are on page 60.

Automatic Operation Features

The following tape features are available in VCR mode. Press VCR so VCR light appears on the front of the DVD/VCR, if necessary.

Automatic Playback

When you put a tape in the DVD/VCR, the power will come on. If the tape's record tab is missing, playback will begin. If a timer recording is set and "⏲" is flashing in the display panel, the power will not come on automatically when you insert a tape with the record tab intact.
If a timer recording is set and "⏲" is flashing in the display panel, the DVD/VCR will eject the tape if the record tab is missing.

Automatic Rewind, Eject

When a tape is played, fast forwarded or recorded to its end, the tape will rewind to the beginning, stop and eject itself. This feature does not operate if AUTO REPEAT is ON. *Details are on page 31.*

Tape Eject

A tape can be ejected with the DVD/VCR power on or off (but the DVD/VCR must be plugged in).
If a timer recording is set and "⏲" appears on the display panel, pressing STOP/EJECT ■▲ (VCR) will turn on the DVD/VCR and/or cancel the timer recording. Press STOP/EJECT ■▲ (VCR) again to remove the tape. Remember to insert a tape and press TIMER SET to reset the timer recording.

Automatic Tracking Adjustment

The VCR adjusts tracking automatically to give you the best possible picture quality. With some recordings, however, you may get a better picture using manual tracking.

Manual Tracking

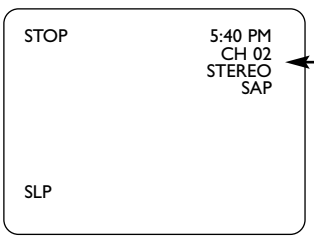
To manually adjust the tracking during normal playback and slow motion playback of a videotape, press SKIP ►I/CH ▲ or SKIP I◄/CH ▼ on the remote. Tracking will return to Automatic Tracking when you press STOP ■ or insert a tape. You can also press SKIP ►I/CH ▲ or SKIP I◄/CH ▼ to remove vertical jitter in a Still picture.

34 Multi-Channel Television Sound / Hi-Fi Stereo

Your DVD/VCR can play tapes recorded in Hi-Fi (high fidelity) stereo, which produces a crisp, clear sound from the left and right audio channels. Your DVD/VCR also can play tapes recorded in a second audio (usually, that means your program is recorded in a second language). Of course, your DVD/VCR will play tapes recorded in monaural (single-source) sound as well. Your DVD/VCR also will record on a video cassette in Hi-Fi stereo or in second audio, so when you play that tape on the DVD/VCR, it will be in stereo or second audio. Read the directions on this page to familiarize yourself with the stereo and second audio setups. Then follow the directions below to record in stereo or second audio, or to play tapes recorded in Hi-Fi stereo.

Understanding Displays

When you watch TV channels through the DVD/VCR, portions of the display shown below will appear when you press DISPLAY twice.

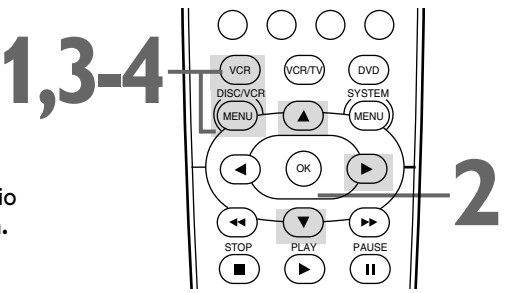


If SAP or STEREO appears, the program is available in second audio or stereo. Even though a program is available in second audio or stereo, you must program the DVD/VCR to receive or record the program. Follow the directions below. This display is not available during tape playback.

To play programs in stereo, connect the DVD/VCR to a Stereo or TV as described on pages 12-13. You will use the red and white AUDIO OUT jacks on the DVD/VCR.

Multi-Channel Television Sound

To set the DVD/VCR to receive programs in stereo or second audio, follow these steps.

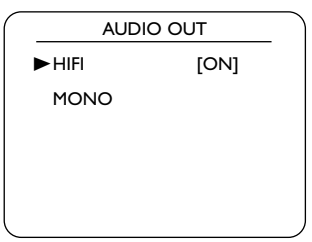


1. **Press VCR, then press DISC/VCR MENU** so MENU appears.
2. **Press ▲ or ▼ to select TV STEREO or SAP** (Second Audio Program). **Press ► so ON appears beside your selection.**
3. **Press DISC/VCR MENU to remove the menu.**

Hi-Fi Stereo

Multi-Channel Television Sound system broadcasts are recorded in Hi-Fi stereo. To play in Hi-Fi stereo the tapes recorded in Hi-Fi stereo, follow these steps.

1. **Press VCR, then press DISC/VCR MENU** so MENU appears.
2. **Press ▲ or ▼ to select AUDIO OUT. Then, press ►.**
3. **Press ▲ or ▼ to select HIFI.** ON will appear beside HIFI.



4. **Press DISC/VCR MENU to remove the menu.**

Helpful Hints

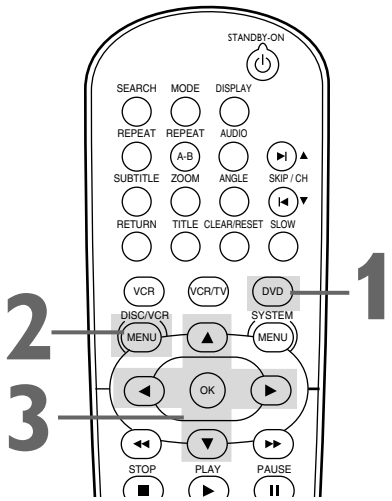
- You can only receive and record in stereo or second audio programs that are broadcast in stereo or second audio. You can only play a tape in Stereo or second audio if it was recorded in stereo or second audio. Please see above to determine if the program is in stereo or second audio.
- If SAP is ON but the program is not broadcast in Second Audio, you will hear and record the program in normal audio.
- Programs are recorded in both Hi-Fi stereo sound and in monaural (single-channel) sound.
- The audio level of a tape recorded in Hi-Fi stereo will differ from the audio level of a tape not recorded in Hi-Fi stereo.
- You can change to MONO if you want monaural audio playback. Follow steps 1-2, then press ▲ or ▼ to select MONO at step 3. Press DISC/VCR MENU. HIFI will disappear from the status display.
- If you play non-Hi-Fi tapes while AUDIO OUT is set to HIFI, HIFI will not appear on the status display. The tape will play in monaural sound.

Please see additional notes on page 63.

Menus, Playback Control (PBC) Function 35

DVD Disc Menus

Some DVDs contain menus that describe the contents of the disc or allow you to customize disc playback. For example, the menu may offer choices for subtitle languages, director's commentary or Sound track playback. To use the DVD menu and select playback features, follow these steps.



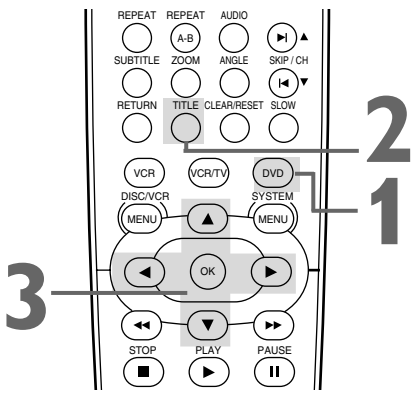
1 **Press DVD** to put the DVD/VCR in DVD mode.
DVD light will appear on the front of the DVD/VCR.

2 **Press DISC/VCR MENU.** The DVD's main disc menu will appear.

3 **Press ▲, ▼, ◄ or ► to select an item, then press OK.**
Continue this process to set up all the features you want.

Using the Title Menu

Some DVDs have a title menu, which lists the titles available on the DVD. Use the title menu to play a specific title.



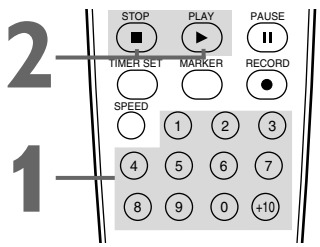
1 **Press DVD** to put the DVD/VCR in DVD mode.
DVD light will appear on the front of the DVD/VCR.

2 **Press TITLE.** The title menu will appear.
If a title menu is not available, the "X" may appear on the TV screen. Or, if the DVD only has a main disc menu as described above, it may appear when you press TITLE.

3 **Press ▲, ▼, ◄ or ► to select a title, then press OK.**
Playback will begin at the title you selected.

Playback Control (PBC) Function

When playing a Video CD with PBC (Playback Control), you can use interactive menu (e.g., playlists) on the TV screen. Refer to instructions accompanying your Video CD for more details on PBC.
Some operations cannot be performed unless the PBC function is cancelled temporarily.



Cancelling and calling back the PBC function

1 **While playback is stopped, press the Number Buttons to enter a track number.**
PBC function is now cancelled and the playback of the Video CD will start.

2 **To call back the PBC function, press STOP ■ twice, then press PLAY ►.**
The title menu will appear on the TV screen.

Helpful Hints

- Menus vary among discs. Follow the literature accompanying the disc for details.
- Not all DVDs have disc or title menus.
- Some DVDs may refer to chapters as "scenes." Some DVDs may refer to the title menu as the "scene index."
- TITLE will not be active with all DVDs.

36 Fast Forward/Reverse Search

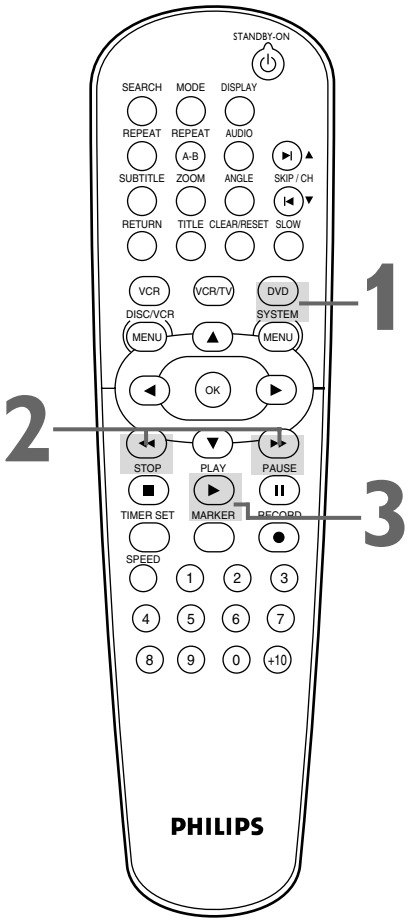
1 **Press DVD** to put the DVD/VCR in DVD mode.
DVD light will appear on the front of the DVD/VCR.

2 **During playback, press SEARCH ►► or ◄◄ on the remote control.**

- During DVD playback, pressing SEARCH ►► or ◄◄ will forward or reverse the picture at approximately 2, 8, 20, 50 or 100 times the normal speed. The speed may vary depending on the disc. ►► 1, ►► 2, ►► 3, ►► 4 or ►► 5 will appear briefly on the TV screen to indicate forward searching. Or, ◄◄ 1, ◄◄ 2, ◄◄ 3, ◄◄ 4 or ◄◄ 5 will indicate reverse searching.
  For DVD playback, the sound will be mute during the search.
- For Video CDs, Audio CDs, MP3 or Windows Media™ Audio playback, pressing SEARCH ►► or ◄◄ will forward or reverse the picture or sound at approximately 2, 8 or 30 times the normal speed. The speed may vary depending on the disc.
  ►► 1, ►► 2 or ►► 3 will appear briefly on the TV screen to indicate forward searching. Or, ◄◄ 1, ◄◄ 2 or ◄◄ 3 will indicate reverse searching.
  For Audio CD, MP3 or Windows Media™ Audio playback, the sound will be intermittent during the search.

Example: Playing a DVD in reverse at twice the normal playing speed.

3 **Press PLAY ► to return to normal playback.**



Helpful Hint

- If you use SEARCH ►► or ◄◄ during Dual Playback, JPEG playback will be paused.

x1.3 and x0.8 Rapid Play with Voice

Rapid Play with Voice is available only during playback on the discs recorded in the Dolby Digital format. Rapid Play with Voice plays back in slightly faster/slower speed while keeping the sound quality as in the normal playback.

1 **During playback, press MODE.**
The current setting appears.

2 **Press OK to switch among ♪♪ (x1.3), ♪ (x0.8) and OFF.**
♪♪ : Plays back approximately at 1.3 times of normal playback.
♪ : Plays back approximately at 0.8 times of normal playback.
OFF : No effects.

3 **To resume normal playback, press PLAY ►.**

Helpful Hint

- During Rapid Play with Voice;
  - Audio Language setting, Black Level setting and Virtual Surround setting cannot be changed.
  - Virtual Surround does not function.
  - the PCM sound will be output if using the digital audio connection (COAXIAL).
  - depending on the scenes you are playing, Rapid Play with Voice may be unavailable.

Title/Chapter Playback, Time Playback 37

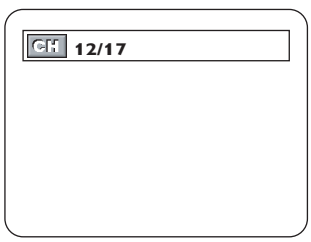
Title/Chapter Playback

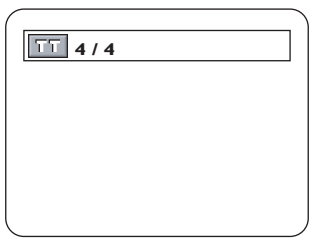
1 **Press DVD** to put the DVD/VCR in DVD mode. DVD light will appear on the front of the DVD/VCR.

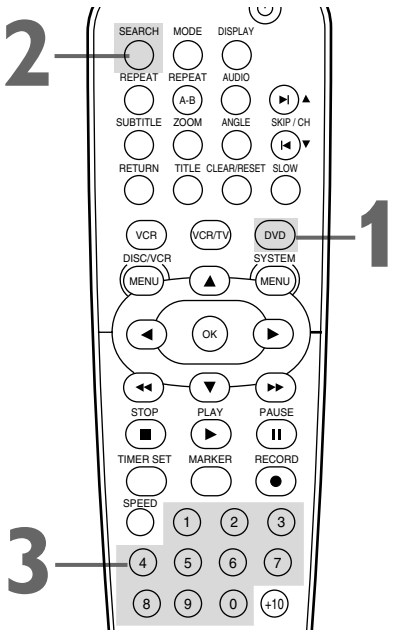
2 **During DVD playback, press SEARCH** until CH (for chapter) or TT (for title) appears on the TV. The number of available titles or chapters will appear at the right (/4, for example).

3 **Enter the title or chapter number using the Number buttons.** The title or chapter will play.

- To select a single-digit track number when there are more than 10 tracks, press OK to play the track.
- If you enter a track number that is not available on the Disc, playback will not begin (or the current track will continue to play).



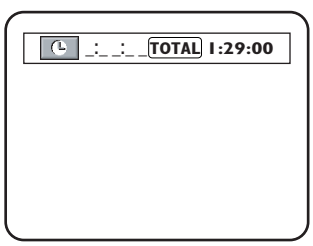




Time Playback

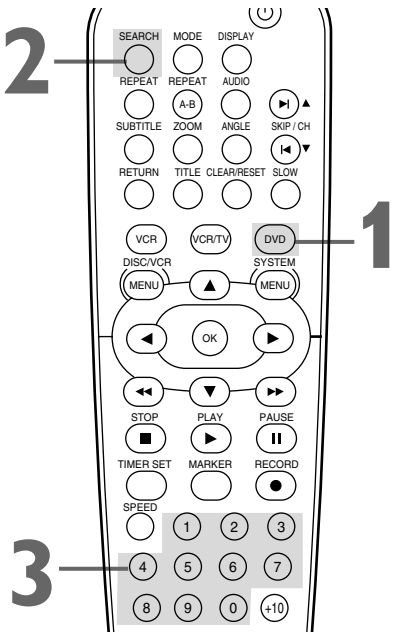
1 **Press DVD** to put the DVD/VCR in DVD mode. DVD light will appear on the front of the DVD/VCR.

2 **During DVD, Video CD (without PBC) or Audio CD playback, press SEARCH** until the Time Search display appears.



3 **Within 30 seconds, use the Number buttons to enter the elapsed playing time (of the track or title) at which you want playback to begin.** Enter the time in hours, minutes and seconds. Within a few seconds, playback will start at the specified time.

- Example: 1 hour, 23 minutes and 30 seconds
  1 → 2 → 3 → 3 → 0
- Make sure the time you enter is within the total time of the current title or track. If it is not, the time space will clear and playback will continue at its current point. The total time available in the current track or title will appear in the Time Search display.
- If you make a mistake entering the time, press CLEAR/RESET to clear the time area. Enter the correct information.



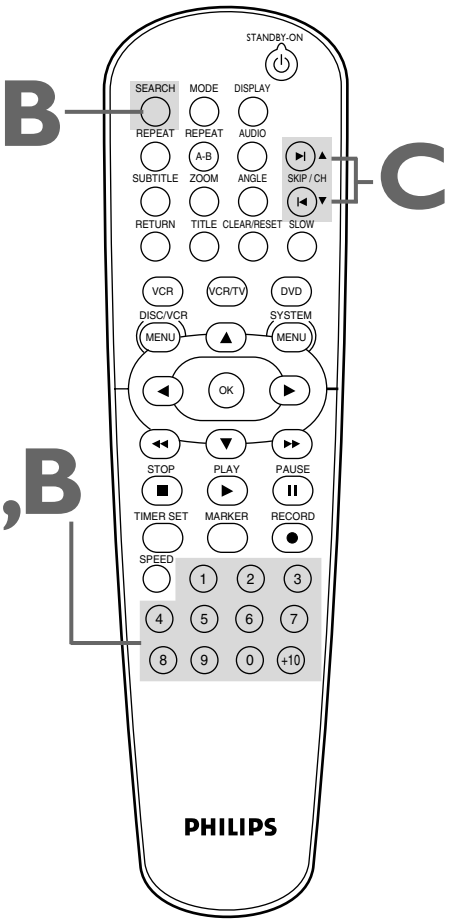
Helpful Hints

- When playback is stopped, use the Number buttons to select a title for immediate playback. During playback, use the Number buttons to choose a chapter for immediate playback.
- Title/chapter playback is not available with some DVDs.

38 Track Playback

There are three ways to play a specific Video CD (without PBC), Audio CD, MP3, Windows Media™ Audio or JPEG track: Use the Number buttons, the SEARCH button or SKIP ▶I/CH ▲ and SKIP I◀/CH ▼.

- Before you begin, press DVD so DVD light appears on the front of the DVD/VCR.



A

Using the Number Buttons

Press the Number buttons to enter a track number. Playback will start at the selected track.

For tracks 10 and above, press the +10 button so the Search display (TR _ _ /12 - an example of total tracks) appears on the TV. Press the Number button of the first digit, then press the Number button of the second digit. For example, to play track 26, press +10, then Number 2, then Number 6 (Each number must be pressed within 30 seconds of the previous number).

For single-digit tracks (1-9), press a single Number button.

If you enter a track number that is not available on the disc, play will not begin (or the current track will continue to play).

B

Using SEARCH

Press SEARCH so the track search display (TR) appears. Within 30 seconds, press the Number buttons to select the track number. Playback will begin at the selected track. For a single-digit track (1-9), enter 0 first. For example, to play track 5, press 0, 5. You do not have to use the +10 button in Search Mode.

C

Using SKIP ▶I/CH ▲ or SKIP I◀/CH ▼

During playback, press SKIP ▶I/CH ▲ to skip the current track and move to the next track. The track number will appear briefly on the DVD/VCR display panel.

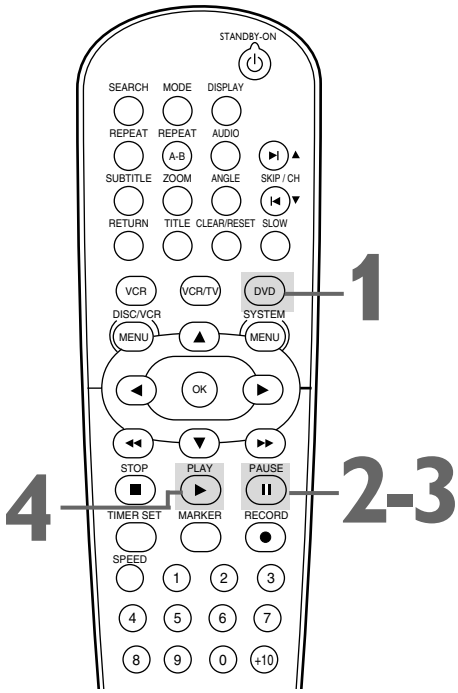
Or, during playback, press SKIP I◀/CH ▼ to return to the beginning of the current track. Press SKIP I◀/CH ▼ repeatedly to go to previous tracks. The track number will appear briefly on the DVD/VCR display panel.

Helpful Hints

- SKIP ▶I/CH ▲ and SKIP I◀/CH ▼ does not function when playback is stopped.
- You cannot use SKIP ▶I/CH ▲ to go from the last track on the disc to the first track.
- Using SKIP ▶I/CH ▲ or SKIP I◀/CH ▼ will only affect MP3 files during Dual Playback.

Paused and Step-by-Step Playback, Resume On 39

Paused and Step-by-Step Playback



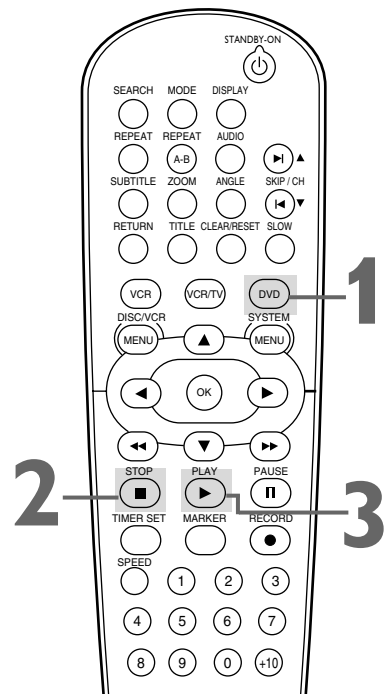
1 **Press DVD** to put the DVD/VCR in DVD mode. DVD light will appear on the front of the DVD/VCR.

2 **During disc playback, press PAUSE ❚❚.** Playback will pause and the sound will be mute.
- Pressing PAUSE ❚❚ once during Dual Playback will pause a JPEG file only. Pressing PAUSE ❚❚ one more time will pause an MP3 playback.

3 **When playing a DVD or Video CD, press PAUSE ❚❚ repeatedly to see the picture advance one frame (or step) at a time.** The sound will remain mute. Pressing PAUSE ❚❚ repeatedly during Audio CD, MP3, Windows Media™ Audio or JPEG playback will have no effect.

4 **Press PLAY ► to resume play.**

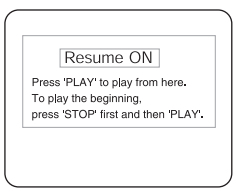
Resume On



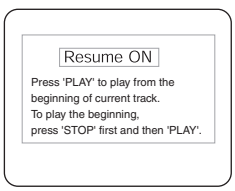
1 **Press DVD** to put the DVD/VCR in DVD mode. DVD light will appear on the front of the DVD/VCR.

2 **Press STOP ■ during playback.** In a few seconds, the following Resume message will appear on the TV screen.

For DVD, VideoCD or AudioCD:



For MP3, Windows Media™ Audio or JPEG:



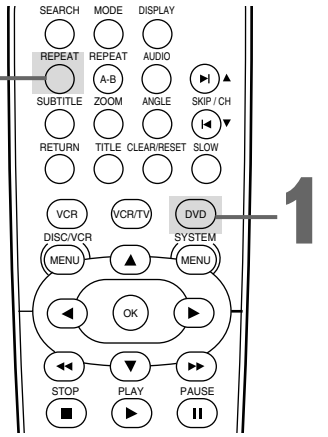
3 **Press PLAY ►.** In a few seconds, playback will resume from the point at which it stopped last. You can resume playing at the same point even if you turn off the DVD/VCR, then turn it on again later. However, opening the disc tray will cancel the Resume feature. Playback will start at the beginning the next time you insert the disc.
For MP3, Windows Media™ Audio and JPEG playback will resume from the beginning of the current track.
To cancel Resume and start playing the disc from the beginning, press STOP ■ again while playback is stopped. The Stop symbol (■) will appear briefly on the TV screen. Press PLAY ► to start playing the disc from the beginning.
- For MP3, Windows Media™ Audio and JPEG tracks, playback will resume from the beginning of the current track.
- To resume playback of a Video CD with PBC function, you have to cancel the PBC function first. See page 35 on how to cancel the PBC function.

Helpful Hint

- Set STILL MODE to FIELD in the DISPLAY menu if paused images are blurry. *Details are on pages 53-54.*

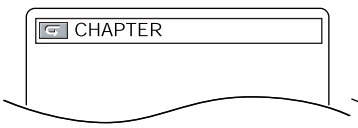
40 Repeat, A-B Repeat

Repeat

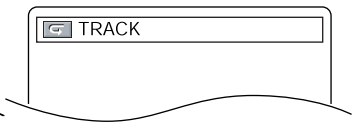


1 **Press DVD** to put the DVD/VCR in DVD mode.
DVD light will appear on the front of the DVD/VCR.

2 **During DVD, Video CD (without PBC), Audio CD, MP3, Windows Media™ Audio or JPEG playback, press REPEAT until the repeat mode you want appears** on the TV.
On a DVD, select CHAPTER, TITLE or OFF. On a Video CD (without PBC) and Audio CD, select TRACK, ALL (all tracks on the disc) or OFF.
With MP3, Windows Media™ Audio or JPEG tracks, select TRACK, GROUP (all tracks in the current folder), ALL or OFF.
Selecting a new track, chapter or title will cancel repeat playback.



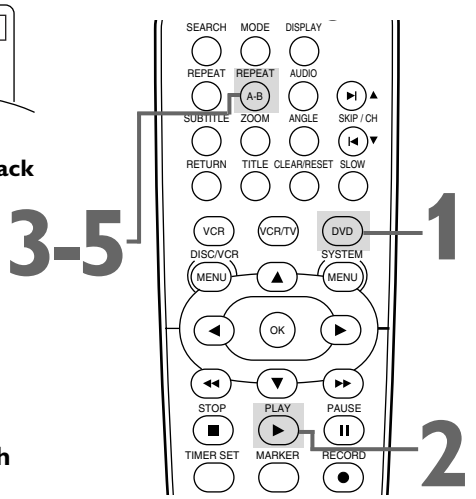
Example: Repeat a DVD chapter



Example: Repeat a Video CD or Audio CD track

A-B Repeat

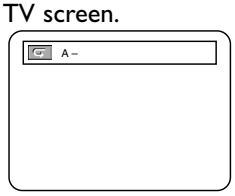
You can play a section of a DVD, Video CD or Audio CD repeatedly. Follow these steps to set up the section you want to repeat.



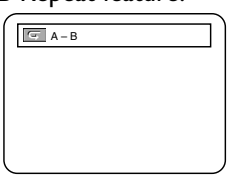
1 **Press DVD** to put the DVD/VCR in DVD mode.
DVD light will appear on the front of the DVD/VCR.

2 **Press PLAY ► to play the disc to the point at which you want repeated playback to begin.**

3 **Press A-B REPEAT to set the starting point (A).**
If you make a mistake, press CLEAR. This will erase point A and let you start over. ↻ OFF will appear briefly on the TV screen.



4 **Play the disc to the point at which you want repeated playback to end, then press A-B REPEAT again.** Within a few seconds, the section will begin to play. The segment will play over and over until you cancel the A-B Repeat feature.



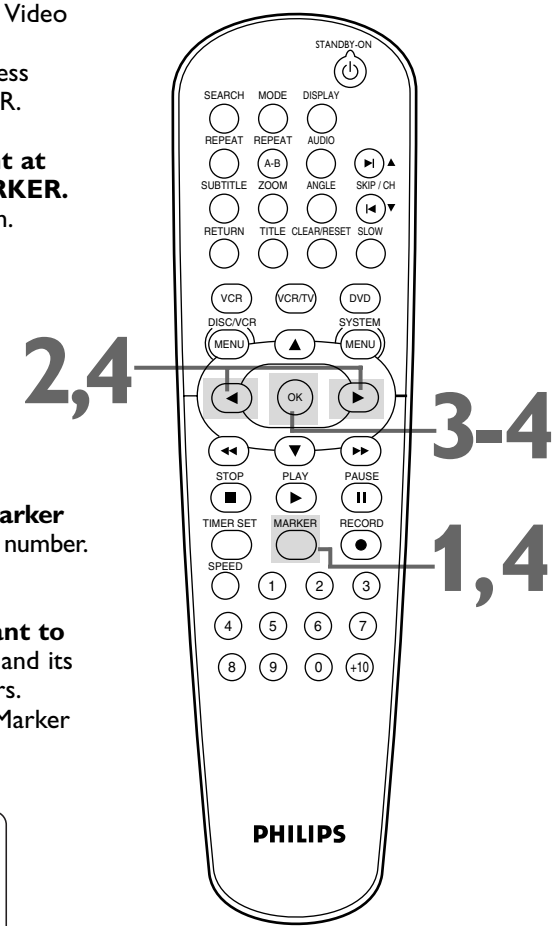
5 **To cancel A-B Repeat, press A-B REPEAT.** ↻ OFF will appear on the TV screen. Regular playback will resume.

Helpful Hints

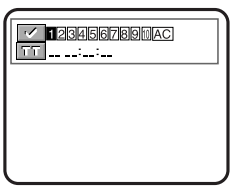
- Repeat playback and A-B Repeat are not available with some discs.
- The entire A-B Repeat section must be within a single title or track. If you do not enter Point B before the end of the track or title is reached, the end of the track or title will become Point B automatically.
- Point B must be later on the disc than Point A.
- A-B Repeat is not available with MP3, Windows Media™ Audio and JPEG files.
- If you choose GROUP Repeat during Dual Playback, all tracks or files in each folder will play repeatedly. For example if you choose GROUP Repeat during Dual Playback of MP3 folder A and JPEG folder B, all MP3 files in folder A and all JPEG files in folder B will be repeated.

Use Markers to remember your favorite places on a DVD, Video CD (without PBC) or Audio CD.

- Before you begin, place the DVD/VCR in DVD mode. Press DVD so DVD light appears on the front of the DVD/VCR.



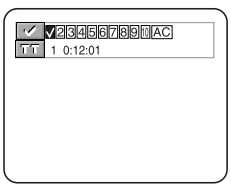
1 **Play the disc to within 30 seconds of the point at which you want to set the Marker. Press MARKER.** The Markers will appear at the top of the TV screen.



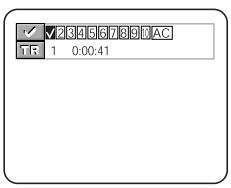
Example: DVD

2 **Within 30 seconds, press ◄ or ► to select a Marker (1-10).** Make sure _ _ : _ _ : _ _ appears beneath the number.

3 **When the playback reaches the point you want to remember, press OK.** The title or track number and its elapsed playing time will appear beneath the Markers. A checkmark will replace the Marker number. The Marker display will disappear in about 30 seconds, or press MARKER again to remove it.



Example: DVD



Example: Video CD or Audio CD

4 **To return to a Marker during playback, press MARKER.**
Press ◄ or ► to choose the Marker you want, then press OK. Disc playback will continue from the marked point.

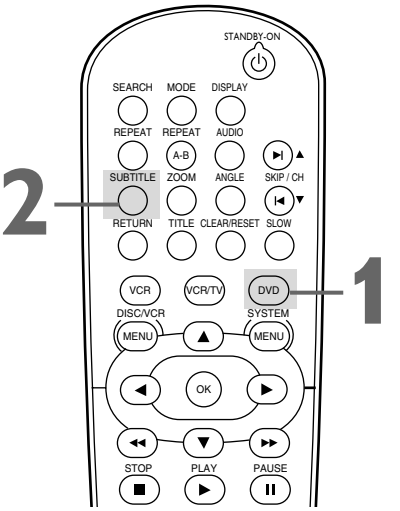
Helpful Hints

- Opening the disc tray or turning off the DVD/VCR will erase all the Markers.
- To erase a single Marker, press MARKER. Press ◄ or ► to select a Marker. Press CLEAR/RESET. Press RETURN or MARKER to remove the display.
- To erase all the Markers, press MARKER until you see the Markers. Press ► to select AC, then press OK. Press MARKER or RETURN to remove the display.

42 Subtitles, Camera Angles

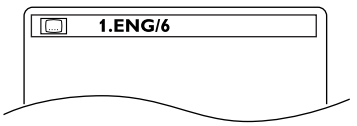
Subtitles

The DVD/VCR allows you to select a language for subtitles during playback. You may select only languages that are available on the DVD.



1 **Press DVD** to put the DVD/VCR in DVD mode.
DVD light will appear on the front of the DVD/VCR.

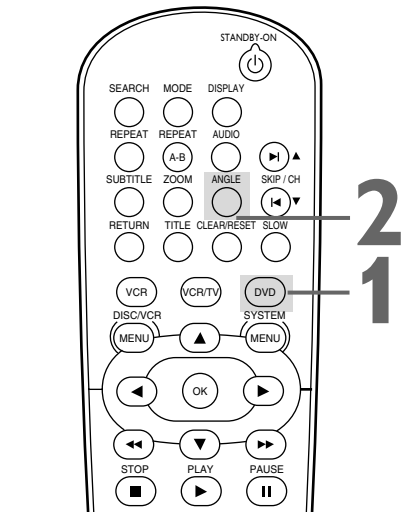
2 **During playback, press SUBTITLE repeatedly to select a subtitle language.** The number of available languages appears at the right of the subtitle display. In the example below, six languages are available (/6). After a few seconds, the subtitles will appear.
Or, press SUBTITLE repeatedly to turn off subtitles.
When no subtitles are available, "NOT AVAILABLE" appears at the right of the subtitle display.



Example: English as first of six available subtitles

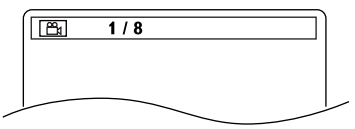
Camera Angles

Some DVDs contain scenes recorded from different angles or perspectives. The perspective will not change if the DVD does not contain sequences recorded from different camera angles.



1 **Press DVD** to put the DVD/VCR in DVD mode.
DVD light will appear on the front of the DVD/VCR.

2 **During playback, press ANGLE repeatedly to select a different perspective.** The number of available angles appears at the right of the Angle display. In this example, eight angles are available (/8).



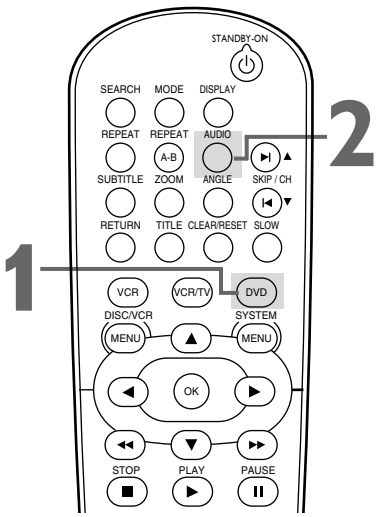
Example: Angle 1 of eight available angles

Helpful Hints

- With some DVDs, you must select a subtitle language in the disc menu.
- If the desired language does not appear after pressing SUBTITLE several times, the disc does not have subtitles in that language.
- Opening the disc tray will cancel your subtitle setting.
- If the ANGLE ICON setting is ON, will appear on the TV screen when the current portion of the disc has multiple camera angles. To set the ANGLE ICON ON or OFF, see pages 58-59.

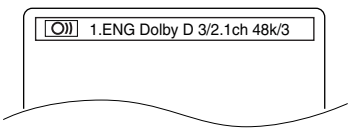
Audio Language

You can select a language for DVDs during playback if multiple languages are available.



1 **Press DVD** to put the DVD/VCR in DVD mode. DVD light will appear on the front of the DVD/VCR.

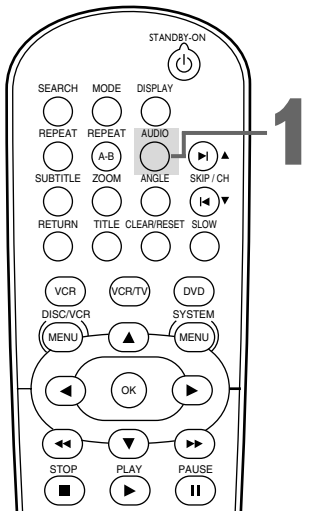
2 **During DVD playback, press AUDIO repeatedly to choose one of the available languages.** Audio display appears at the top of the TV screen, and the new audio will be heard. The display will disappear after about 5 seconds. The Audio display may show the current settings for the Dolby Digital or multi-channel (5.1CH) sound, if they are available on the disc, and the sampling rate of the disc. The number of available languages appears after the " / " at the right of the display (/3, for example).



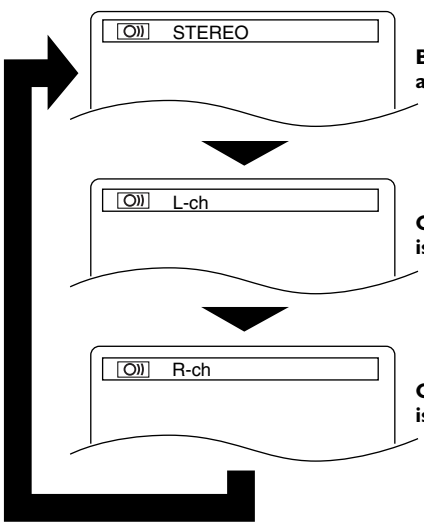
Example: English audio

Stereo Sound Mode

Adjust Stereo Sound to determine whether you will hear the left channel, the right channel or both channels (stereo) during Video CD or Audio CD playback.
If you connected the DVD/VCR to a Stereo using the COAXIAL DIGITAL AUDIO OUT jack as described on page 14, or if you connected to a TV with only the RF coaxial cable, you cannot adjust Stereo Sound Mode.



1 **Press AUDIO repeatedly during Video CD or Audio CD playback to choose STEREO, L-ch or R-ch.**



Both right and left channels are heard (stereo).

Only the left channel is heard.

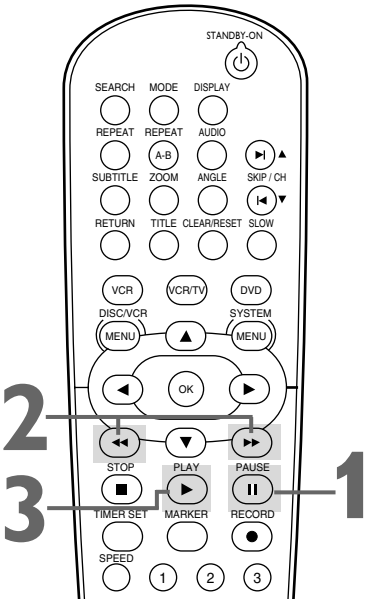
Only the right channel is heard.

Helpful Hints

- If a language is not available after pressing AUDIO several times, the DVD does not have that language.
- Some DVDs only let you change the language in the disc menu.
- Audio languages may be abbreviated (such as ENG for English). Or, three dashes (- - -) may appear instead of an abbreviation.
- Audio language selection cannot be made during Rapid Play with Voice. (Refer to page 36.)

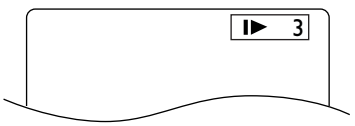
44 Slow Motion, Zoom

Slow Motion



1 **Press PAUSE ❚❚ during DVD or Video CD playback.**

2 **Press ▶▶ or ◀◀.** Slow motion playback will begin. Press ▶▶ or ◀◀ repeatedly during slow motion playback to play a DVD forward or backward at approximately 1/16, 1/8 or 1/2 the normal speed. Reverse slow motion is not available on a Video CD.
An I▶ 1 (1/16), I▶ 2 (1/8) or I▶ 3 (1/2) will appear briefly on the TV screen to indicate slow forward playback. An ◀I 1 (1/16), ◀I 2 (1/8) or ◀I 3 (1/2) will indicate slow reverse playback.

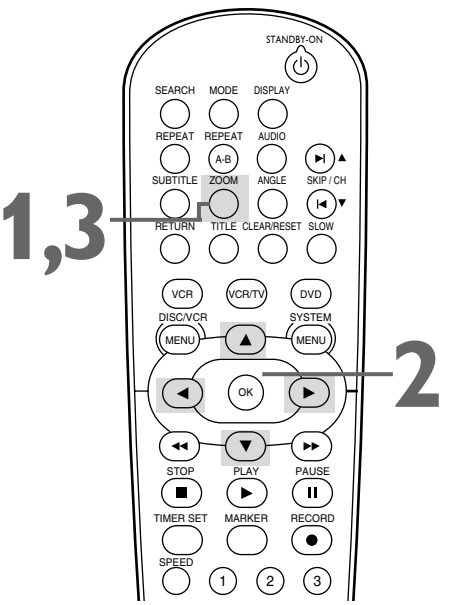


Example: Playing a DVD forward at half the normal speed.

3 **Press PLAY ▶ to return to normal playback.**

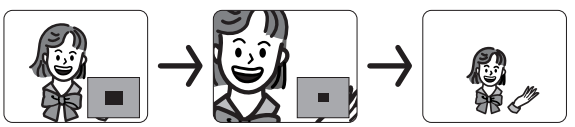
Zoom

Zooming lets you enlarge the playback image of DVDs, Video CDs or JPEG CDs, and lets you pan through the enlarged image.



1 **Press ZOOM during playback or when playback is paused.** The picture will appear twice as large. Press ZOOM again to make the picture four times larger than normal. Either x2 or x4 will appear beside the zoom icon in the upper left corner of the TV screen.

2 **While the picture is enlarged, press ▲, ▼, ◀ or ▶ to move the zoomed image up, down, left or right.**
The gray box with an inner blue box that shows during Zoomed playback is the position guide. To remove it or show it, press OK. The position of the blue box inside the gray box indicates the position of the zoomed image within the overall picture.



3 **To return the picture to normal, press ZOOM repeatedly.**

Helpful Hints

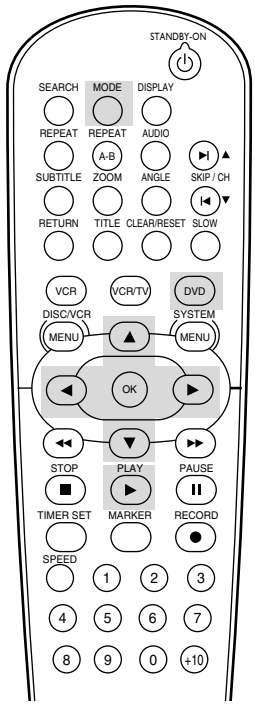
- Only slow forward is abailable for Video CDs.
- The sound will be mute during paused or slow motion playback.
- You cannot zoom a disc menu.
- The x4 zooming is not active with some discs. Only x2 zooming is available for Video CDs and JPEG CDs.
- Position guide is not available for JPEG playback.

Program Playback

You may determine the order in which Audio CD, MP3, Windows Media™ Audio or JPEG tracks will play.

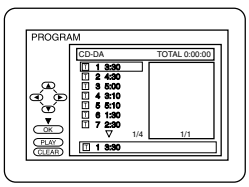
Random Playback

You may play the tracks of an Audio CD in Random order instead of the order in which they are recorded (1,2,3...). You can also use this feature for MP3, Windows Media™ Audio and JPEG tracks.

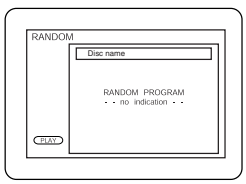


1 **Press DVD** to put the DVD/VCR in DVD mode. DVD light will appear on the front of the DVD/VCR.

2 **While playback is stopped, press MODE repeatedly until the PROGRAM/RANDOM screen appears.**



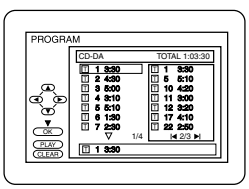
Example: Audio CD



Example: MP3 (DUAL PLAYBACK - OFF)

Program Playback

3 **Press ▲ or ▼ to select a track you want to play, then press OK.**



Example: Audio CD

Press CLEAR to erase the last track in the program if you make an error. Additional tracks may be on other screens. Press ▼ to go on to the next page, and press ▲ to go back to the previous page. Repeat this step until you have selected all the tracks you wish to play in the program. To see tracks in a program when there are more than 8 tracks, use SKIP I◄/CH▲, SKIP ►I/CH▼ to see all the tracks. For MP3, Windows Media™ Audio or JPEG folders, press ◄ or ► to go to the previous or next level of folders. Press TITLE to return to the first item in the highest level.

4 **Press PLAY ►.** The tracks will play once in the order you set. Turning off the player or opening the disc tray will erase the program.

Random Playback

3 **While the RANDOM screen appears, press PLAY ►.** The tracks will play in random order. After all the tracks play once, playback will stop.

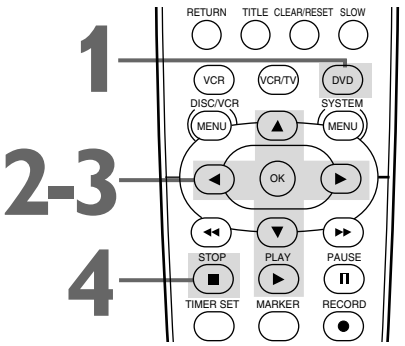
Helpful Hints

- You cannot use the Number buttons or SEARCH to select another track while playing a program. Use SKIP ►I/CH ▲ or SKIP I◄/CH ▼to select other tracks in a program.
- You cannot combine Random playback with a program.
- You may play a program or a track within a program repeatedly. During program playback, press REPEAT so ALL (all tracks in the program) or TRACK appears. The entire program or the current track will play over and over.
- You cannot alter a program during playback.
- You can start program playback only while in the PROGRAM screen.
- A program can have a maximum of 99 tracks.
- To erase all tracks in the program, select ALL CLEAR at step 3.
- Program/Random playback of MP3, Windows Media™ Audio or JPEG tracks is not available while DUAL PLAYBACK is ON.

46 MP3/Windows Media™ Audio/JPEG Playback

The DVD/VCR will play MP3, Windows Media™ Audio and JPEG files that you record and finalize on a CD-R (Compact Disc-Recordable) or CD-RW (Compact Disc-Rewritable).
These discs may contain pictures in a JPEG format or audio tracks in an MP3 or Windows Media™ Audio format. For example, you may have photographic film developed by a retailer that places the pictures on a CD-R for you. These pictures may be in JPEG format. Or, you may copy or download MP3/Windows Media™ Audio music files from certain legal Internet sites, then copy those files onto a CD-R or CD-RW.
You cannot make or record such discs using this DVD/VCR. See your computer manual for details on recording.
Keep these characteristics in mind when making discs you intend to play on the DVD player of this DVD/VCR.

- Record MP3 files at a sampling frequency of 44.1 kHz or 48 kHz. Record in a constant bit rate between 32 kbps and 320 kbps.
- Record Windows Media™ Audio tracks at a sampling frequency of 44.1kHz or 48kHz. Record in a constant bit rate between 48-192kbps.
- When recording JPEG files, the size of the picture should be between 32 x 32 and 6300 x 5100 dots.



1 **Press DVD** to put the DVD/VCR in DVD mode.
DVD light will appear on the front of the DVD/VCR.

2 When you put a CD-R or CD-RW with MP3, Windows Media™ Audio or JPEG files in the DVD/VCR, a file list will appear on the TV when you press DISC/VCR MENU. (If you use **PLAY ▶** to close the disc tray, Playback starts automatically.) **Press ▲ or ▼ to select a folder, MP3, Windows Media™ Audio or JPEG file.**

3 **If you choose a track or file, press PLAY ▶ or OK.**
Starting with the track or file you selected, the tracks/files will play in the order they were recorded, i.e. 1, 2, 3.
If you select a folder and press OK, the tracks or files within that folder will appear. Press ▲ or ▼ to select the track or file you want to play, then press PLAY ▶ or OK.

- Press TITLE to return to the first item in the highest level of folders or files. You also can press ◀ or ▶ to return to previous or next levels.
- To change the TRANSITION MODE for JPEG playback, press MODE repeatedly until TRANSITION MODE appears on top of the TV screen during playback. Then press ◀, ▶ or OK to switch CUT IN/OUT and FADE IN/OUT. If you choose CUT IN/OUT, the images will cut in and out sharply as playback progresses. If you choose FADE IN/OUT, the images will fade in and out as playback progresses.
- To change the size of the playback image, press MODE repeatedly until SIZE MODE appears at the top of the TV screen during playback. Then press ◀, ▶ or OK to switch NORMAL(100%) and SMALL(95%).
- Press MODE to remove the display.
- During JPEG playback, press ◀ or ▶ to rotate a picture 90 degrees clockwise or counter-clockwise.

4 **To stop playback, press STOP ■.**

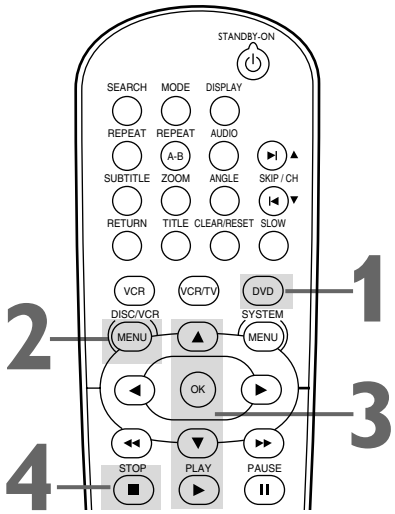
Helpful Hints

- MP3/Windows Media™ Audio tracks and JPEG images are known as files. Groups of files are called folders.
- Folders have the icon, MP3 files have the icon, Windows Media™ Audio files have the icon and JPEG files have the icon.
- A maximum of 255 folders can be recognized. A maximum of 999 files can be recognized.
- If you use PLAY ▶ to close the disc tray, playback starts automatically. If you use OPEN/CLOSE ⏏ to close the disc tray, you have to press PLAY ▶ to start playback.
- During playback, use the Number buttons or SKIP ▶I/CH ▲ and SKIP I◀/CH ▼ to change tracks. If a track is not available, "X" will appear on the TV screen, and playback may resume at an incorrect track or may continue with its current track.
- Specific Time playback is not possible with MP3 files.
- To see the file list during playback, press DISC/VCR MENU. The current track will be highlighted.
- Progressive JPEGs (JPEG files saved in the progressive format) will not play on this DVD player.
- Copyright protected Windows Media™ Audio files will not play on this DVD player.
- High resolution JPEG files takes longer to be displayed.
- SIZE CHANGE MODE may have no effect on some files (e.g. files with a small picture size).

MP3/Windows Media™ Audio/JPEG Playback (cont'd) 47

Dual Playback

This feature lets you play MP3 and JPEG files simultaneously.
Available only when DUAL PLAYBACK is ON.
See pages 58-59 on how to set the DUAL PLAYBACK ON or OFF.



1 **Press DVD to put the DVD/VCR in DVD mode. DVD light will appear on the front of the DVD/VCR.**

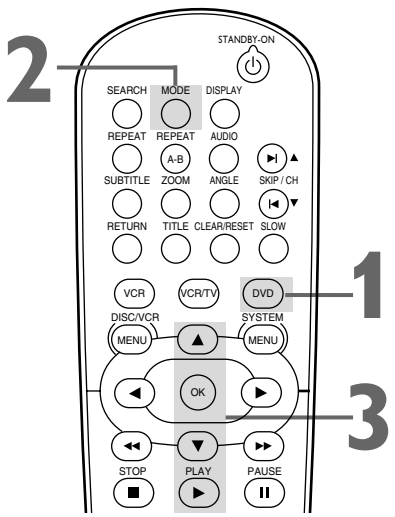
2 **Press DISC/VCR MENU during MP3/JPEG playback.**
A file list will appear.

3 **Press ▲ or ▼ to select a desired MP3/JPEG file from the List and press PLAY ► or OK.**

4 **To stop playback, press STOP ■.**

Folder Playback

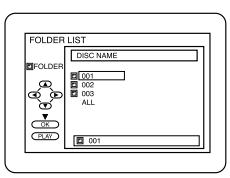
You may select to play a folder.
Available only when DUAL PLAYBACK is ON.
See pages 58-59 on how to set the DUAL PLAYBACK ON or OFF.



1 **Press DVD to put the DVD/VCR in DVD mode. DVD light will appear on the front of the DVD/VCR.**

2 **While playback is stopped, press MODE.**
A folder list will appear.

3 **Press ▲ or ▼ to select a folder, then press PLAY ► or OK.**
- MP3 and JPEG files in the selected folder will play simultaneously.



Helpful Hints

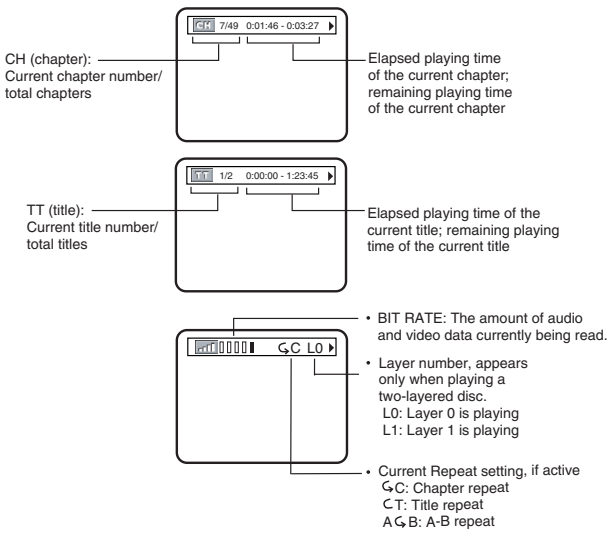
- If you press PLAY ► directly after you inserted a disc which contains both MP3 and JPEG files and if the DUAL PLAYBACK setting is ON, Dual Playback will start automatically.
- You can not play Windows Media™ Audio and JPEG files together at the same time. If you choose a Windows Media™ Audio file during Dual Playback, only Windows Media™ Audio file will play.
- Zooming or rotating a JPEG file during Dual Playback may cause an intermittent sound.
- Dual Playback may not function properly if MP3 and JPEG files on the disc interfere each other due to the difference in their data size.

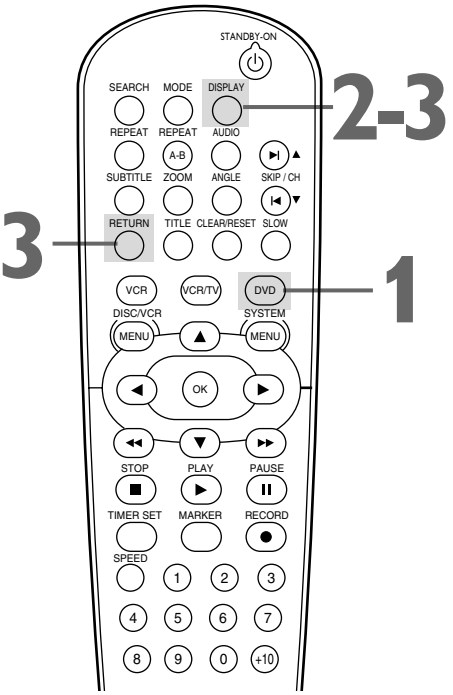
48 On-Screen Displays

DVD Displays

1 **Press DVD** to put the DVD/VCR in DVD mode.
DVD light will appear on the front of the DVD/VCR.

2 **Press DISPLAY repeatedly to see the following displays during DVD playback.**



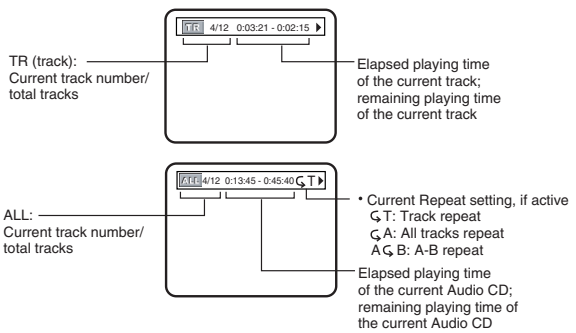


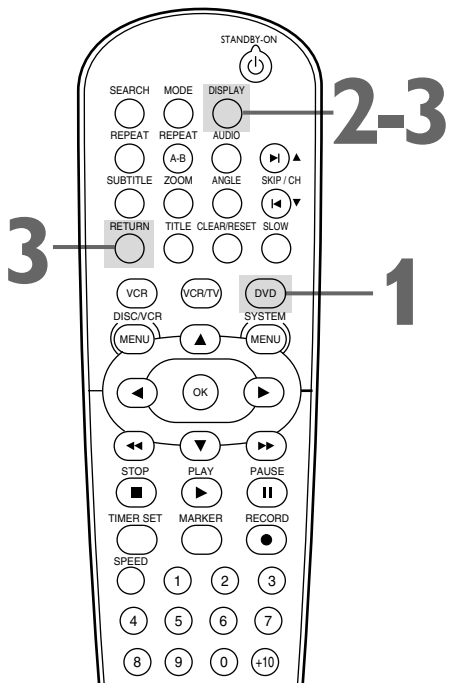
3 **Press DISPLAY repeatedly or press RETURN to remove the display.**

Video CD and Audio CD Displays

1 **Press DVD to put the DVD/VCR in DVD mode.**
DVD light will appear on the front of the DVD/VCR.

2 **Press DISPLAY repeatedly to see the following displays during Video CD (without PBC) or Audio CD play.**

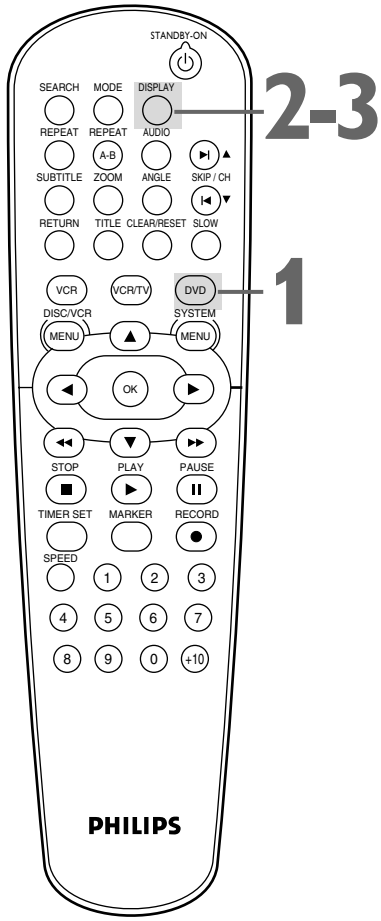




3 **Press DISPLAY repeatedly or press RETURN to remove the display.**

MP3/Windows Media™ Audio/JPEG Displays

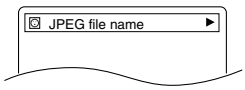
Review MP3 and JPEG track information during playback.



1 **Press DVD** to put the DVD/VCR in DVD mode. DVD light will appear on the front of the DVD/VCR.

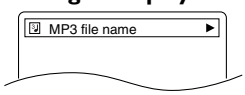
2 **Press DISPLAY** until the current track or file information appears.

During JPEG playback

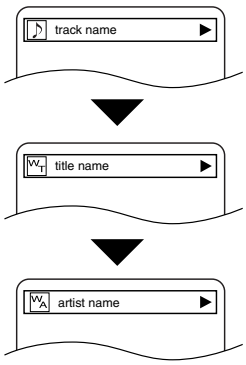


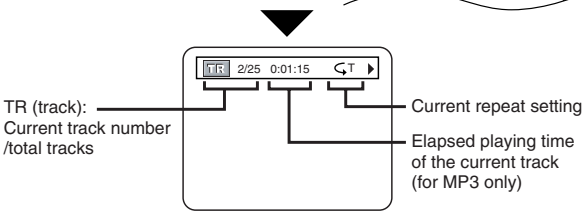
or

During MP3 playback



During Windows Media™ Audio playback

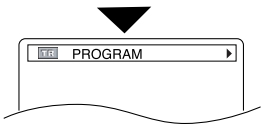




Example: MP3 playback

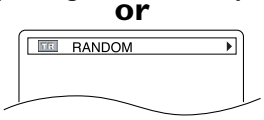
The following may appear to indicate Repeat playback.

- T: The current track will play repeatedly.
- G: tracks in the current folder (group) will play repeatedly.
- A: All tracks will play repeatedly



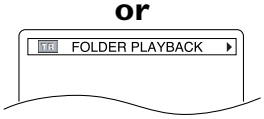
only during PROGRAM Playback

or



only during RANDOM Playback

or



only during FOLDER Playback

- Program and Random Playback is available only when DUAL PLAYBACK is OFF.
- Folder Playback is available only when DUAL PLAYBACK is ON.

3 **Press DISPLAY again to remove the display.**

Helpful Hint

- For MP3 files recorded with Variable Bit Rate (VBR), the elapsed time displayed on the screen may vary from the actual elapsed time.

50 Black Level, Virtual Surround

Black Level

Adjust Black Level to brighten the DVD or Video CD picture.

1 **Press DVD to put the DVD/VCR in DVD mode.** DVD light will appear on the front of the DVD/VCR.

2 **During DVD or Video CD playback, press MODE** so the Black Level icon shows in the top left corner of the TV screen.

3 **Within 10 seconds, press ◄,► or OK repeatedly to choose ON or OFF.** ON brightens the dark parts of the picture. OFF shows the original picture as recorded.

Virtual Surround

You can enjoy improved stereo sound when you play DVDs, Video CDs, Audio CDs, MP3 or Windows Media™ Audio files recorded in Dolby Digital or Pulse Code Modulation (PCM). Check the disc case for details on availability.

1 **Press DVD to put the DVD/VCR in DVD mode.** DVD light will appear on the front of the DVD/VCR.

2 **During disc playback, press MODE** repeatedly until the Virtual Surround icon appears in the top left corner of the TV screen.

3 **While the Virtual Surround icon appears, press ◄,► or OK to choose 1, 2 or OFF.** The default setting is OFF. The icon will disappear after about 10 seconds.

Helpful Hints

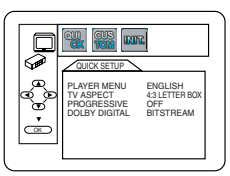
- Black Level is not available for a PAL DVD.
- Virtual Surround is available only when the player is connected to a Stereo or TV using the red and white AUDIO OUT jacks on the player.
- For Video CDs and Audio CDs, you can adjust Virtual Surround only if you set Stereo Sound to STEREO. *Details are on page 43.*
- The Black Level and Virtual Surround settings will be saved even if the player is turned off.
- The Black Level and Virtual Surround settings cannot be used during x1.3 and x0.8 Rapid Play with Voice (refer to page 36).

Initializing

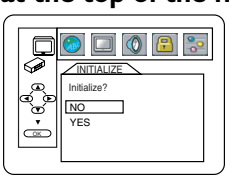
Use INITIALIZE to return all your DVD player's SETUP menu items (except PARENTAL) to their default settings.

1 **Press DVD to put the DVD/VCR in DVD mode.** DVD light will appear on the front of the DVD/VCR.

2 **While playback is stopped, press SYSTEM/MENU.** The QUICK SETUP screen appears.

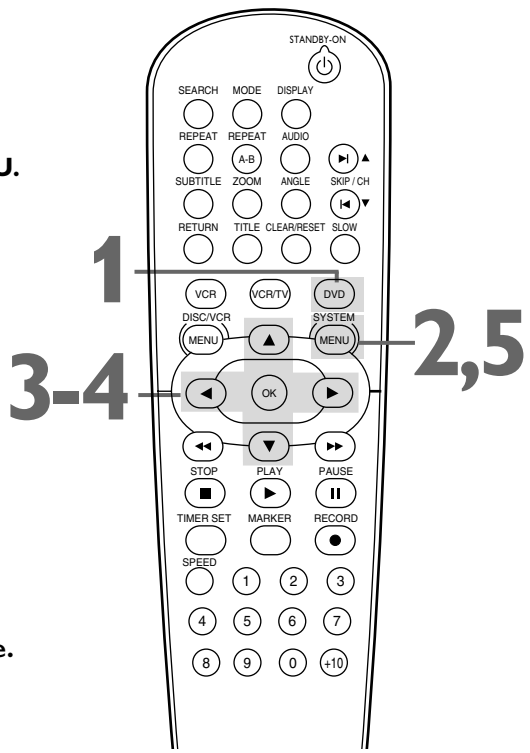


3 **Press ◄ or ► to select INIT. (INITIALIZE) at the top of the menu, then press OK.**

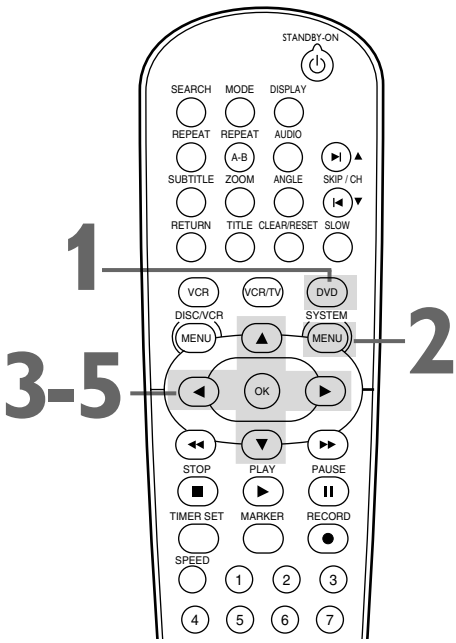


4 **Press ▲ or ▼ to select YES. Then, press OK twice.** To cancel the process, select NO instead.

5 **Press SYSTEM/MENU to remove the menu.**

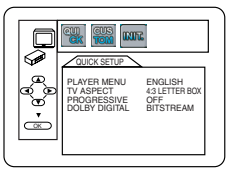


You can select different languages for the Audio or Subtitles of DVDs, as well as languages for DVD disc menus and the setup menus of the DVD player.



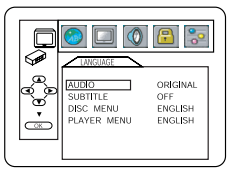
1 **Press DVD to put the DVD/VCR in DVD mode.** DVD light will appear on the front of the DVD/VCR.

2 **While playback is stopped, press SYSTEM/MENU.** The QUICK SETUP screen appears.

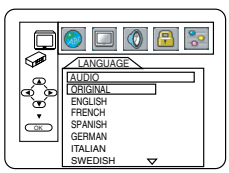


3 **Press ◄ or ► to select CUSTOM at the top of the menu, then press OK.**

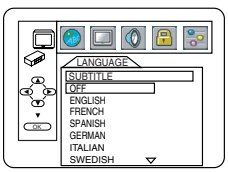
4 (LANGUAGE) will be selected. **Press OK.**



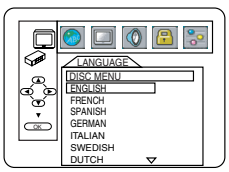
5 **Press ▲ or ▼ to select AUDIO, SUBTITLE, DISC MENU or PLAYER MENU. Press OK.** The language options for the selected item will appear.



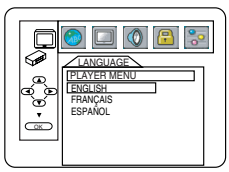
AUDIO: The DVD's audio plays in the selected language.



SUBTITLE: Subtitles appear in the selected language.



DISC MENU: A DVD's disc menu appears in the selected language.



PLAYER MENU: The DVD player's setup menu can be in English, French or Spanish only.

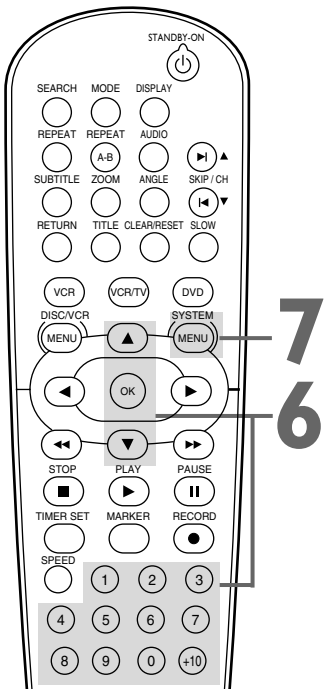
Instructions continue on the next page.

Helpful Hints

- If the DVD's default settings for Audio and Subtitle are the same language, the subtitles may not show unless you turn them on.
- Use the AUDIO and SUBTITLE buttons to select Audio and Subtitles available on the DVD. Details are on pages 42-43.
- If you set AUDIO to ORIGINAL, the default setting of the DVD Audio will play.
- If you set PLAYER MENU to FRANCAIS (French) or ESPAÑOL (Spanish) and need English: Follow steps 1-2. At step 3, the IDIOMA or LANGUE menu will appear. Press OK. Press ▼ to select MENU DU LECTEUR or MENÚ REPRODUC., then press OK. Press ▲ to select ENGLISH, then press OK. The menus will change to English. Press SETUP to remove the menus.
- You can change the PLAYER MENU language in the QUICK SETUP menu that appears when you first press SETUP. With QUICK selected, press OK. PLAYER MENU will be selected. Press OK. Press ▲ or ▼ to choose a language, then press OK. Press SETUP to remove the menu.
- The language settings may not take effect until you restart disc playback from the beginning.

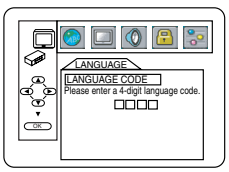
52 Language (cont'd)

Instructions continued from the previous page.



6 **Press ▲ or ▼ to select a language, then press OK.** The language lists may continue on multiple screens. Press ▲ or ▼ to move to the other screens.

- **If you select OTHER for AUDIO, SUBTITLE, or DISC MENU, press four Number buttons to enter the code** for the language you desire. Use one of the Language Codes listed below. The language or language code you select will appear in the Language menu beside AUDIO, SUBTITLE, or DISC MENU.



- You can select other languages for AUDIO, SUBTITLE and DISC MENU only if the language is available on the disc. If the language you select is not recorded on the DVD, changing these settings will have no effect.

7 **Press SYSTEM/MENU to remove the menu.**

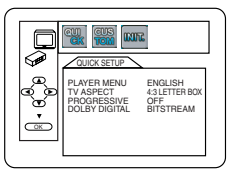
Language Codes

A-B		English	5160	Kannada	5760	Panjabi	6247	**T**	
Abkhazian	4748	Esperanto	5161	Kashmiri	5765	Pashto	6265	Tagalog	6658
Afar	4747	Estonian	5166	Kazakh	5757	Persian	5247	Tajik	6653
Afrikaans	4752	**F-H**		Kinyarwanda	6469	Polish	6258	Tamil	6647
Albanian	6563	Faroese	5261	Kirghiz	5771	Portuguese	6266	Tatar	6666
Amharic	4759	Fiji	5256	Kirundi	6460	Pushto	6265	Telugu	6651
Arabic	4764	Finnish	5255	Korean	5761	Quechua	6367	Thai	6654
Armenian	5471	French	5264	Kurdish	5767	Rhaeto-Romance	6459	Tibetan	4861
Assamese	4765	Frisian	5271	**L-N**		Romanian	6461	Tigrinya	6655
Aymara	4771	Gaelic (Scots)	5350	Laothian	5861	Russian	6467	Tonga	6661
Azerbaijani	4772	Galician	5358	Latin	5847			Tsonga	6665
Bangla	4860	Georgian	5747	Latvian	5868	**S**		Turkish	6664
Bashkir	4847	German	5051	Lettish	5868	Samoan	6559	Turkmen	6657
Basque	5167	Greek	5158	Lingala	5860	Sangho	6553	Twi	6669
Bengali	4860	Greenlandic	5758	Lithuanian	5866	Sanskrit	6547	**U-Z**	
Bhutani	5072	Guarani	5360	Macedonian	5957	Serbian	6564	Ukrainian	6757
Bihari	4854	Gujarati	5367	Malagasy	5953	Serbo-Croatian	6554	Urdu	6764
Bislama	4855	Hausa	5447	Malay	5965	Sesotho	6566	Uzbek	6772
Breton	4864	Hebrew	5569	Malayalam	5958	Setswana	6660	Vietnamese	6855
Bulgarian	4853	Hindi	5455	Maltese	5966	Shona	6560	Volapuk	6861
Burmese	5971	Hungarian	5467	Maori	5955	Sindhi	6550	Welsh	4971
Byelorussian	4851	**I-K**		Marathi	5964	Singhalese	6555	Wolof	6961
C-E		Icelandic	5565	Moldavian	5961	Siswat	6565	Xhosa	7054
Cambodian	5759	Indonesian	5560	Mongolian	5960	Slovak	6557	Yiddish	5655
Catalan	4947	Interlingua	5547	Nauru	6047	Slovenian	6558	Yoruba	7161
Chinese	7254	Interlingue	5551	Nepali	6051	Somali	6561	Zulu	7267
Corsican	4961	Inupiak	5557	Norwegian	6061	Spanish	5165		
Croatian	5464	Irish	5347	**O-R**		Sundanese	6567		
Czech	4965	Italian	5566	Occitan	6149	Swahili	6569		
Danish	5047	Japanese	5647	Oriya	6164	Swedish	6568		
Dutch	6058	Javanese	5669	Oromo (Afan)	6159				

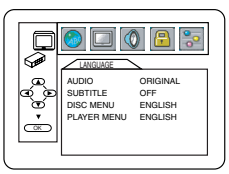
You may adjust the TV Aspect ratio and Still Mode clarity, and Progressive Scan compatibility.

1 **Press DVD to put the DVD/VCR in DVD mode.** DVD light will appear on the front of the DVD/VCR.

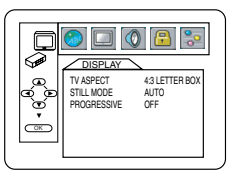
2 **When playback is stopped, press SYSTEM/MENU.** The QUICK SETUP screen will appear.



3 **Press ◄ or ► to select CUSTOM at the top of the menu, then press OK.**



4 **Press ◄ or ► to select (DISPLAY), then press OK.**



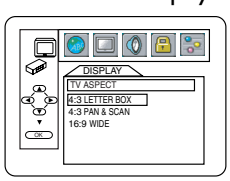
5 **Press ▲ or ▼ to select an item, then press OK.**

- **If you selected TV ASPECT, press ▲ or ▼ to select a setting, then press OK.**

  Choose 4:3 LETTER BOX if you want to see the entire, widened picture with black bars at the top and bottom of the screen. This looks like the picture you see when watching movies in a theater. This setting is possible only if the DVD was recorded in the letterbox or widescreen format.

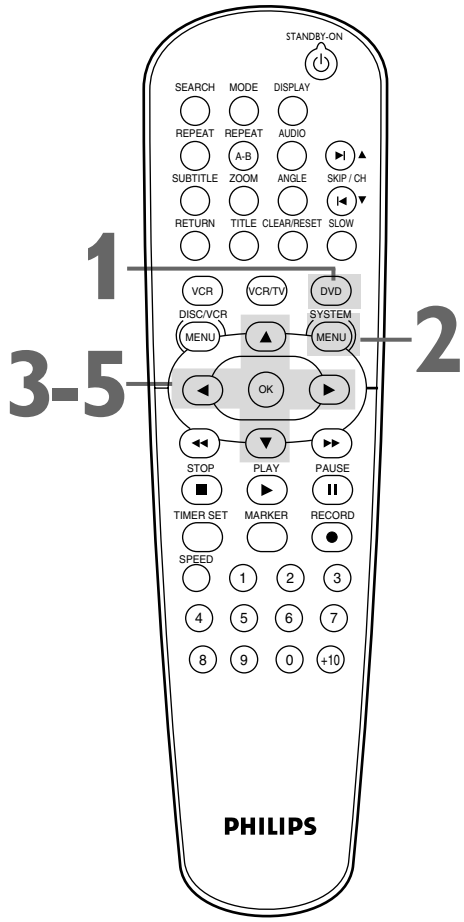
  Choose 4:3 PAN & SCAN for a full height picture, with both sides trimmed. Some companies refer to this as reformatting the picture to fit your TV screen and may call it the regular or normal format.

  Choose 16:9 WIDE if you connected a widescreen TV to the DVD player.



TV ASPECT

Instructions continue on the next page.



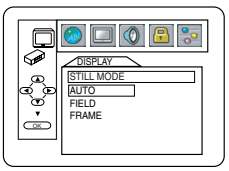
Helpful Hints

- Selecting a different TV ASPECT setting is only effective if it is available on the DVD. Check the DVD disc menu or case for details.
- You also can adjust TV ASPECT in the QUICK SETUP menu that appears when you first press the SYSTEM/MENU. With QUICK selected, press OK. Press ▼ to select TV ASPECT, then press OK. Press ▲ or ▼ to choose a setting, then press OK. Press SYSTEM/MENU to remove the menu.

54 Display (cont'd)

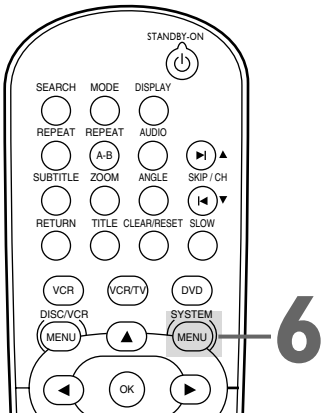
Instructions continued from the previous page.

- **If you selected STILL MODE, press ▲ or ▼ to select a setting, then press OK.** This determines the quality of an image in still mode. AUTO is the default setting.
  If you select FIELD, still images will be stabilized but coarse due to the small amount of data.
  If you select FRAME, the images will be highly defined due to the simultaneous output of two fields.



STILL MODE

6 **Press SYSTEM/MENU to remove the menu.**



Progressive Scan

You may adjust the Progressive Scan compatibility.

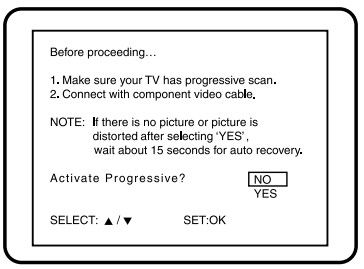
1 **Follow the steps 1-4 in the Display setup on page 53.**

2

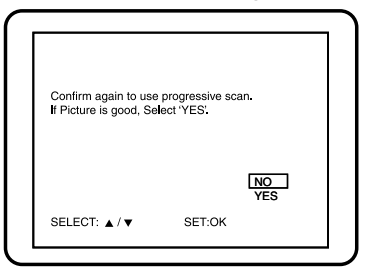
- **Press ▲ or ▼ to select PROGRESSIVE, then press OK** repeatedly to turn PROGRESSIVE ON or OFF. The default setting is OFF. Choose ON if your TV has Progressive Scan and if the TV is connected to the player's COMPONENT VIDEO OUT jacks. Choose OFF otherwise.

3 **Press SYSTEM/MENU to remove the menu.**

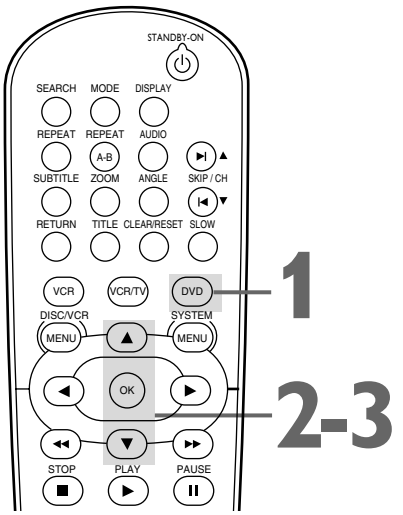
- If PROGRESSIVE is ON, this message appears:


Before proceeding...
1. Make sure your TV has progressive scan.
2. Connect with component video cable.
NOTE: If there is no picture or picture is distorted after selecting 'YES', wait about 15 seconds for auto recovery.
Activate Progressive?
NO
YES
SELECT: ▲/▼
SET:OK

Press ▲ or ▼ to make a selection, then press OK.
If you select NO, the menu disappears and PROGRESSIVE is OFF. If you select YES, this appears:



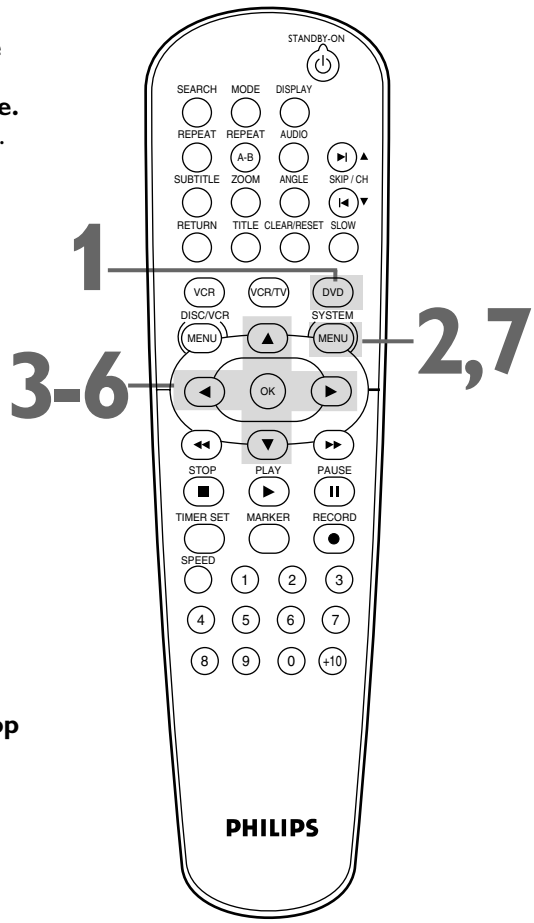
Confirm your setting, then press OK. The menu will disappear and PROGRESSIVE will be ON.
If you do not press any buttons for 15 seconds, Progressive Scan will switch to OFF.



Helpful Hints

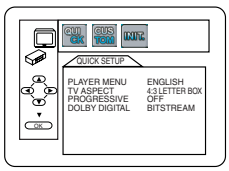
- You can set PROGRESSIVE to OFF either in the DISPLAY menu or by pressing and holding PLAY ► on the front of the player for more than 5 seconds.
- You can adjust PROGRESSIVE in the QUICK SETUP menu that appears when you first press SETUP. With QUICK selected, press OK. Press ▼ to select PROGRESSIVE. Press OK to choose OFF or ON. Press SETUP to remove the menu.

Change Audio settings based on other equipment you connected to the DVD player or according to your disc sound features. These setting only affect the Audio from the DVD player of the DVD/VCR.

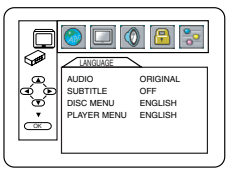


1 **Press DVD to put the DVD/VCR in DVD mode.** DVD light will appear on the front of the DVD/VCR.

2 **While playback is stopped, press SYSTEM/MENU.** The QUICK SETUP screen will appear.

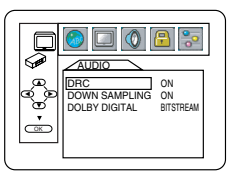


3 **Press ◄ or ► to select CUSTOM** at the top of the menu, **then press OK.**



4 **Press ◄ or ► to select (AUDIO) at the top of the menu, then press OK.**

5 **Press ▲ or ▼ to select DRC, DOWN SAMPLING, or DOLBY DIGITAL, then follow step 6 accordingly.**



6

- If you selected DRC, **press OK** repeatedly to turn Dynamic Range Control (DRC) ON or OFF. Choosing ON compresses the range of volume by suppressing loud sounds and raising low sounds. DRC is available only on discs recorded in the Dolby Digital format.
- If you selected DOWN SAMPLING, **press OK** repeatedly to choose ON or OFF. Choose ON to set downsampling to 48 kHz. Choose OFF to set downsampling to 96 kHz.
  DOWN SAMPLING is available only when the player is connected to a Stereo using the COAXIAL DIGITAL AUDIO OUT jack as described on page 14.
- If you selected DOLBY DIGITAL, **press OK** repeatedly to select BITSTREAM or PCM. Select BITSTREAM if you used the COAXIAL DIGITAL AUDIO OUT jack to connect the DVD player to a stereo that is Dolby Digital compatible. *Details are on page 14.* Otherwise, choose PCM.

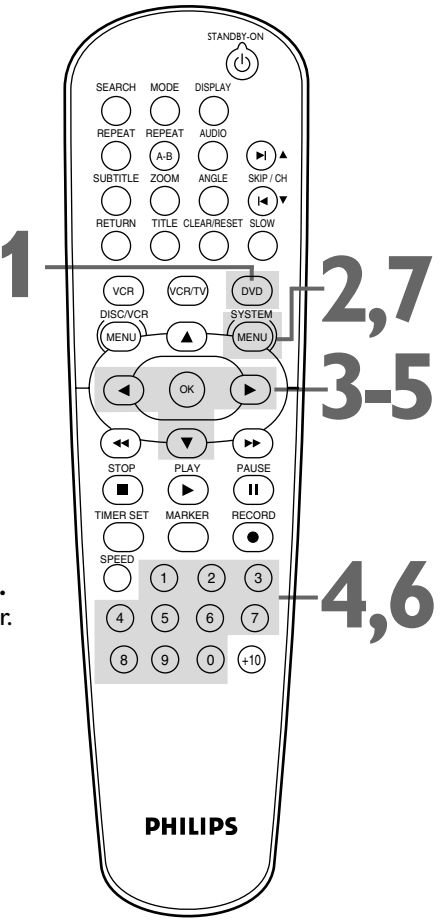
7 **Press SYSTEM/MENU to remove the menu.**

Helpful Hints

- Dolby Digital sound must be available on the DVD.
- You can adjust DOLBY DIGITAL in the QUICK SETUP menu that appears when you first press SYSTEM/MENU. With QUICK selected, press OK. Press ▼ to select DOLBY DIGITAL. Press OK to choose BITSTREAM or PCM. Press SYSTEM/MENU to remove the menu.
- When you play a disc that has copyright protection, downsampling will be at 48 kHz, even if you set DOWN SAMPLING to OFF.

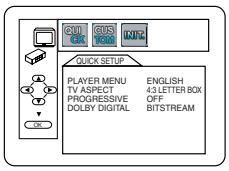
56 Parental Password

Parental Controls prevents viewing of DVDs that exceed your rating limits. This feature will not limit viewing if the DVD is not rated or coded. Check your DVDs and settings before letting children access the DVD/VCR. You will need a password to change the Parental settings or to play a blocked disc. Follow these steps to change your password.



1 **Press DVD to put the DVD/VCR in DVD mode.** DVD light will appear on the front of the DVD/VCR.

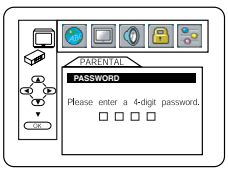
2 **While playback is stopped, press SYSTEM/MENU.** The QUICK SETUP screen appears.



3 **Press ◄ or ► to select CUSTOM, then press OK.**

4 **Press ◄ or ► to select (PARENTAL), then press OK.**

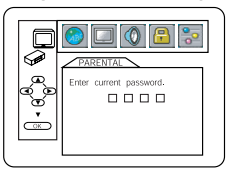
- If this is the first time you set a password, this menu will appear.



Press the Number buttons to enter a 4-digit password. The password will appear on the screen. Write it down so you will not forget it.

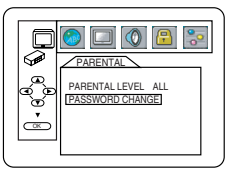
Press OK, and proceed to step 7.

- If you have set a password before, this menu will appear.



Press the Number buttons to enter your current 4-digit password. Asterisks (*) will appear instead of your password. This protects its identity. **Press OK, and proceed to step 7.**

5 If you like to change the password, **press ▼ to select PASSWORD CHANGE, then press OK.**



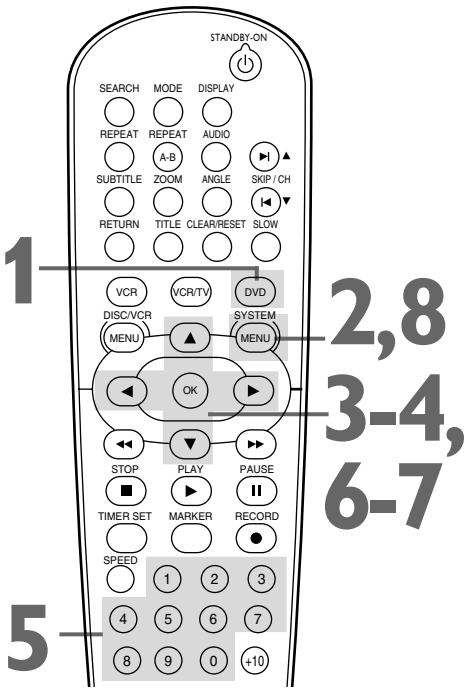
6 **Press the Number buttons to enter a 4-digit password.** The password numbers will appear on the screen. Write down the password so you will not forget it. **Press OK.** The previous menu will reappear.

7 **Press SYSTEM/MENU** to remove the menu.

Helpful Hints

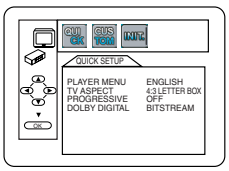
- The default password is 4737. If you forget your password, press Number buttons 4, 7, 3, 7 at step 4. You will be prompted to enter a new 4-digit password. Use the Number buttons to enter a new 4-digit password, then press OK. PARENTAL LEVEL will reset to ALL. See page 57 to reset PARENTAL LEVEL as you desire.
- A power failure will not erase your password.

Follow these steps to set the rating level for your DVDs. DVDs whose ratings exceed the level you set will not play.

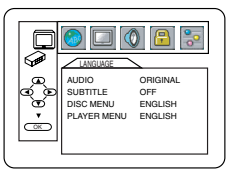


1 **Press DVD to put the DVD/VCR in DVD mode.**
DVD light will appear on the front of the DVD/VCR.

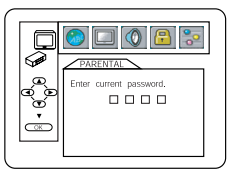
2 **While playback is stopped, press SYSTEM/MENU.**
The QUICK SETUP screen appears.



3 **Press ◄or ► to select CUSTOM** at the top of the menu, **then press OK.**

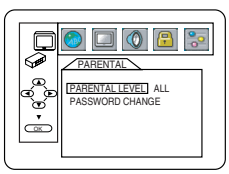


4 **Press ◄or ► to select (PARENTAL),** at the top of the menu, **then press OK.**

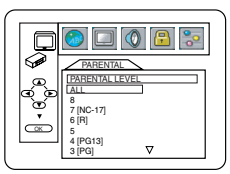


5 **Press the Number buttons to enter your 4-digit password.**

6 **Press ▲ or ▼ to select PARENTAL LEVEL, then press OK.**



7 **Press ▲ or ▼ to select a level, then press OK.**
The rating levels continue on two menu screens. Press ▲ or ▼ repeatedly to move to the next or previous screen to find the rating level you want.
After making your selection, the previous menu will appear. The level you selected will appear beside PARENTAL LEVEL.



8 **Press SYSTEM/MENU to remove the menu.**

RATING EXPLANATIONS

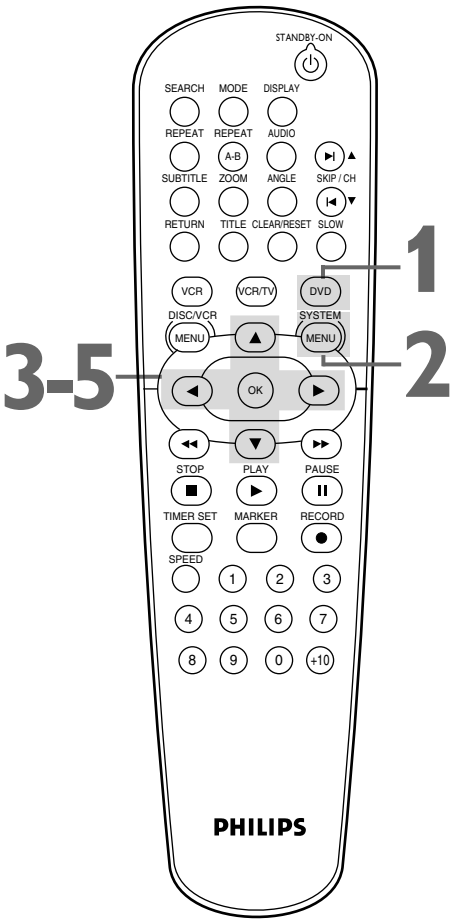
- ALL - Parental Controls is inactive; all discs can play.
- 8 - Adult material
- 7 - NC-17 - Not appropriate for children under 17
- 6 - R - Restricted; parental approval required for viewers under 18.
- 4 - PG13 - Unsuitable for children under 13
- 3 - PG - Parental Guidance suggested.
- 1- G - General Audience; recommended for all ages.

Helpful Hints

- When you try to play a DVD whose rating exceeds the level you set, an on-screen message will indicate the DVD cannot play. Remove the DVD, then set PARENTAL LEVEL to ALL. Reload the DVD and begin playback. Some DVDs may let you enter your 4-digit password to begin playback. Follow the on-screen messages as prompted.
- You cannot use the default password (4737) to play a DVD.

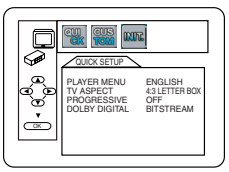
58 Others

You may adjust the Angle Icon, Automatic Power Off, Dual Playback and Slide Show settings.

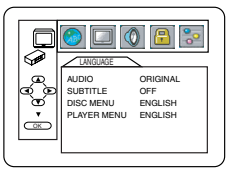


1 **Press DVD to put the DVD/VCR in DVD mode.** DVD light will appear on the front of the DVD/VCR.

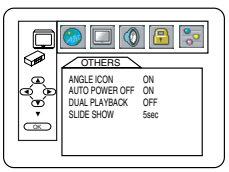
2 **While playback is stopped, press SYSTEM/MENU.** The QUICK SETUP screen appears.



3 **Press ◄ or ► to select CUSTOM at the top of the menu, then press OK.**

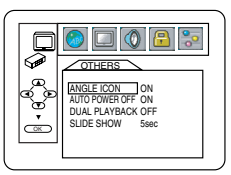


4 **Press ◄ or ► to select (OTHERS), then press OK.**



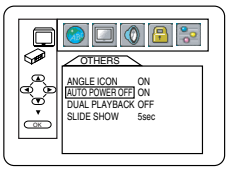
5 **Press ▲ or ▼ to select an item, then press OK.**

- **If you selected ANGLE ICON, press OK** repeatedly to select ON or OFF. The default setting is ON. Choose ON to see the Angle icon when multiple camera angles are available during DVD playback. *Details are on page 42.* Choose OFF to disable the Angle icon.



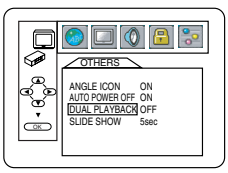
ANGLE ICON

- **If you selected AUTO POWER OFF, press OK** repeatedly to choose ON or OFF. The default setting is ON. Choose ON if you want the player to turn off when there is no activity at the player or its remote for 30 minutes.



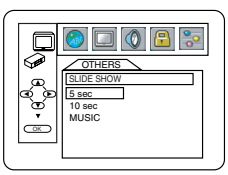
AUTO POWER OFF

- **If you selected DUAL PLAYBACK, press OK to choose ON or OFF. This feature lets you play MP3 and JPEG files simultaneously.**



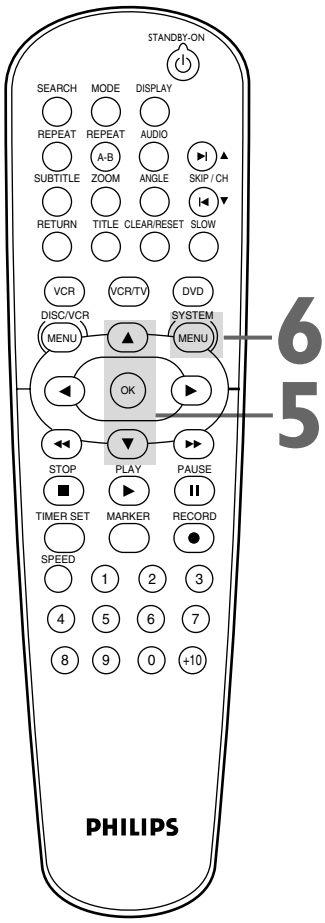
DUAL PLAYBACK

- **If you selected SLIDE SHOW, press ▲ or ▼ to choose 5sec, 10sec, or MUSIC, then press OK.** This adjusts the playback speed of the SLIDE SHOW. The default setting is 5 sec. Choose 5 sec to display each image for 5 seconds. Choose 10 sec to display each image for 10 seconds. Choose MUSIC to display an image for each MP3 sound file playback when DUAL PLAYBACK is ON.



SLIDE SHOW

6 **Press SYSTEM/MENU to remove the menus.**



Helpful Hint

- If you select MUSIC when DUAL PLAYBACK is OFF, the playback speed will be set to 5 seconds automatically.

60 Glossary

AUDIO IN/OUT Jacks: jacks on the front and back of the DVD/VCR that receive audio from another source (IN) or send audio to another system (OUT). These jacks are red (right) and white (left).

Automatic Channel Setup: process in which the VCR memorizes all available TV channels. Then, when you press SKIP ►I/CH ▲ or SKIP I◄/CH ▼ in VCR mode, you only scan through channels you receive.

Bands: settings that allow you to tune channels.

- **Antenna** – VHF (very high frequency; channels 2-13) and UHF (ultra high frequency; channels 14-69).
- **Cable** – standard channels 1-125 can be available without a Cable Box.

Cable Box/Satellite Receiver Output Channel: 03 or 04.

COAXIAL DIGITAL AUDIO OUT jack: Sends digital audio to a Stereo, allowing you to adjust the volume at the Stereo. This connection provides the 5.1 channel surround sound as heard in movie theaters. This jack on the DVD/VCR is black.

COMPONENT VIDEO OUT (Y C_B/P_B C_R/P_R) Jacks: jacks on the back of the DVD/VCR that send high-quality DVD video to a TV with Component Video In jacks. This connection provides the best picture quality for the DVD player of the DVD/VCR.

Dolby Digital: A surround sound system that provides 5.1 channel sound as used in movie theaters.

Dubbing: copying a video cassette using another VCR.

HQ: high quality; a feature in the VCR circuitry which provides enhanced picture detail.

Line Input: The channel to which you set your DVD/VCR during video cassette copying. If you connected the other video equipment to the AUDIO and VIDEO In jacks on the front of the DVD/VCR, select L2. If you used the AUDIO and VIDEO IN jacks on the back of the DVD/VCR, select L1. If you accidentally enter Line Input mode, press SKIP ►I/CH ▲ or SKIP I◄/CH ▼ or the Number buttons to select another channel.

OTR: One-Touch Recording; a timed recording on the VCR that starts immediately and records for 30 minutes to 8 hours.

RF coaxial cable: A black cable supplied with your DVD/VCR. Use it to connect your DVD/VCR to your TV, Cable Box or Satellite Receiver.

S-Video: Produces a clearer DVD picture by sending separate signals for the luminance and the color. S-Video only provides a picture for the DVD player of the DVD/VCR.

Tape Speeds: how fast the video cassette travels during a recording or playback. The faster the tape speed, the better the picture quality. Slower tape speeds affect picture quality, but you can record more onto a videotape.

- **SP** (standard playback) – fastest tape speed (recording time for a T120 tape is approximately 2 hours); best picture quality.
- **LP** (long playback) – average tape speed. You cannot record in LP with this VCR. If tapes were recorded on a different VCR in LP speed, the tape will play in LP on the DVD/VCR.
- **SLP** (super long playback) – slowest tape speed (recording time for a T120 tape is approximately 6 hours). This speed allows the maximum recording on a single videotape.

VIDEO IN/OUT Jacks: jacks on the front and back of the DVD/VCR that receive video from another source (IN) or send video to other video equipment or a TV (OUT). These jacks are yellow.

If you are having problems with your product, check this list of problems and possible solutions before requesting service. You may be able to solve the problem yourself.
If you need to call a customer service representative, please know the model number and serial number of your product before you call. This information is displayed on the back of the product. Also, please take a moment to identify the problem you are having, and be prepared to explain this to the representative. If you believe the representative will need to help you with operations, please stay near the product. Our representatives will be happy to assist you.
For online reference, please visit our web site at http://www.philips.com/usasupport

The DVD/VCR has no power.
- Make sure the power cord is connected completely to an AC (alternating current) outlet.
- Press STANDBY-ON ⏻ to turn on the DVD/VCR. The DVD/VCR usually turns on in the mode it was in when you turned it off. If there has been a power failure, it will turn on in VCR mode. Press DVD to put the unit in DVD mode. Press VCR to put the unit in VCR mode. Or, press SOURCE on the front of the DVD/VCR to switch between the two modes.

The remote control will not operate the DVD/VCR.
- Aim the remote control directly at the remote sensor on the front of the DVD/VCR, not toward the TV. *Details are on page 20.*
- Remove all obstacles between the remote control and the DVD/VCR.
- Inspect and/or replace the batteries in the remote control. *Details are on page 15.*
- Use the remote control within 23 feet of the DVD/VCR.
- When using the DVD player, press the DVD button, then try the other DVD feature buttons. Press DVD so DVD light appears on the front of the DVD/VCR. This means the DVD/VCR is in DVD mode.
- To use the VCR, press VCR, then try the other VCR feature buttons. Press VCR so VCR light appears on the front of the DVD/VCR. This means the DVD/VCR is in VCR mode.

There is no picture in DVD mode.
- Make sure the video cable is connected correctly. You may connect either the yellow video cable (supplied), an optional S-Video cable, or optional component video cables. Make sure the TV is set to the correct Video In channel (usually the AUX IN, A/V IN, Auxiliary In, EXT or External In, Component Video In or S-Video In channel). Check your TV owner's manual for details. *Details are on pages 8 and 12-14.*
- If you only used the supplied black RF coaxial cable, *details are on pages 9-11.* Make sure the TV is set to channel 3 or 4 (the output channel of the DVD/VCR). Or, if you have a Cable Box/Satellite Receiver, make sure the TV is set to the Cable Box/Satellite Receiver output channel (usually 03 or 04).
- Insert a DVD that is playable on this DVD/VCR. *Details are on page 7.*
- Make sure the DVD/VCR is in DVD mode. Press DVD or SOURCE so DVD light appears on the front of the DVD/VCR.
- Check if Progressive Scan is set correctly according to your connection to a TV. *Details are on page 8.* Enable Progressive Scan at the DVD player only if you used the Component Video connection to a TV that has Progressive Scan. *Details are on pages 8, 12 and 54.*

Disc cannot be played.
- Insert a playable disc. *Details are on page 7.*
- Place the disc correctly in the disc tray. If the disc is one-sided, place the disc in the tray with the label facing up. If the disc is two-sided, make sure the label of the side you want to play is facing up.
- Clean the disc. Make sure the disc is not scratched or warped.
- Cancel the Parental Controls, enter the password, or change the control level. *Details are on pages 56-57.*
- Make sure the disc is labelled for use in Region 1 or ALL regions and is NTSC or PAL compatible. *Details are on page 7.*

There is no sound.
- Connect the audio cables firmly. Make sure the cables are connected to the AUDIO IN jacks on the TV or Stereo. *Details are on pages 12-13.*
- Check the audio settings of the DVD player. *Details are on page 55.*
- Check the audio settings of the DVD. For example, you may have selected "soundtrack" playback or an unavailable sound setting (such as Dolby Digital). *Details are on pages 43 and 55.* Try other sound options provided in the DVD disc menu.
- If you used audio cables (instead of only using the supplied black RF coaxial cable) make sure the TV or Stereo is set to the correct Audio In channel (usually the AUX IN, Auxiliary In, A/V IN, Audio In or External In channel). See your TV or Stereo owner's manual for details.

The picture is distorted.
- Connect the DVD/VCR directly to the TV. *Details are on pages 8-14.* Do not connect the DVD/VCR to a VCR, then connect the VCR to the TV. Copyright protection systems in the VCR could distort the picture playing on the DVD/VCR.
- There are some cases where a disc or videotape picture may be distorted slightly because of the quality in which it was recorded. This is not a malfunction of the DVD/VCR.
- Make sure the disc is compatible with the DVD player of the DVD/VCR. *Details are on page 7.*
- If your TV is not PAL compatible, DVDs recorded in the PAL color system may play only in black and white, the picture may roll continuously, or the picture may appear distorted.

62 Helpful Hints (cont'd)

You cannot change the camera angle of a DVD.
- The DVD might not contain segments recorded from different camera angles. See if multiple angles are available by referring to the disc case or DVD disc menu. *Details are on page 42.*

You cannot change the audio or subtitle language of a DVD.
- The DVD does not contain audio or subtitles in the desired language. Not all DVDs contain audio or subtitles in multiple languages. See if other languages are available by referring to the disc case or DVD disc menu. *Details are on pages 42-43.*

An X appears in the top right corner of the TV screen when you try a DVD feature.
- The operation is not available at the current time or the feature is not available on the disc. Some features are only available during playback. Others can be accessed only if playback is stopped. Try stopping or playing the disc, then try the feature again.

The DVD/VCR switches from DVD mode to VCR mode after 30 minutes of no activity.
- When AUTO POWER OFF is set to ON, the DVD/VCR switches itself from DVD mode to VCR mode if disc playback stops for more than 30 minutes and you press no buttons on the remote or the DVD/VCR. *Details are on pages 58-59.* This prevents possible damage to your TV's picture tube that can occur if a still image is left on too long.

A screen saver appears on the TV screen during DVD mode.
- The DVD logo will appear on the TV screen when you stop disc playback. You cannot remove it.

You want to use the DVD player during a VCR timer recording or while "◷" appears on the display panel.
- Press STANDBY-ON ⏻ to turn on the DVD/VCR. Press DVD to choose DVD mode, then continue with other DVD features as described in this manual.

A maximum of 999 MP3/JPEG files can be recognized.

Power Failure
- Clock setting, language selection and channel setup may be lost if the power fails. See pages 21-23 to set up the channels, clock and language again.

The VCR will not record a TV program.
- Put the DVD/VCR in VCR mode. Press VCR or SOURCE so VCR light appears on the front of the DVD/VCR.
- Check the connections between the DVD/VCR, TV, antenna/Cable TV signal and Cable Box/Satellite Receiver (if applicable). *Details are on pages 9-14.* For VCR features, you must connect the DVD/VCR to a TV with the RF coaxial cable or the yellow video cable as described on pages 9-12.
- Make sure the video cassette has a record tab. *Details are on page 24.*

The VCR will not perform a timer recording.
- Make sure the recording start and stop times are set correctly. *Details are on pages 28-29.*
- Make sure a tape is in the VCR and the tape has a record tab. *Details are on page 24.* If, after programming a timer recording, you press TIMER SET without putting a tape in the DVD/VCR, "◷" will blink on the display panel.
- If the record tab on a tape is missing, the DVD/VCR will eject the tape. "◷" will blink.
- Press TIMER SET to put the DVD/VCR in standby mode for the timer recording.
- Make sure the VCR clock is set. *Details are on page 22.*
- The VCR may not perform or continue a timer recording if the power fails.
- If you have a Cable Box/Satellite Receiver, set timer recordings differently. *Details are on page 10.*
- Finish programming a timer recording at least 5 minutes before it is set to begin.
- 12 p.m. is noon; 12 a.m. is midnight.

There is no picture or the picture is noisy or has streaks during video cassette playback.
- Put the DVD/VCR in VCR mode. Press VCR or SOURCE so VCR light appears on the front of the DVD/VCR.
- If you used the supplied RF coaxial cable to connect the DVD/VCR to the TV, make sure the TV is on the same channel as the DVD/VCR's output channel (03 or 04). The DVD/VCR's output channel is channel 3 when you receive it. To change it to channel 4, see *page 9.* Make sure channel 03 or 04 is properly adjusted at the TV.
  Or, if you connected the DVD/VCR to the TV using audio and video cables, select the correct Video In channel at the TV. *Details are on pages 8 and 12.*
- Adjust the tracking. *Details are on page 33.*
- TVs placed too close to the DVD/VCR can cause interference during tape playback. Move the DVD/VCR away from the TV.

The Number buttons won't work for TV channels above 69.
- Enter channel numbers as a 2-digit number. If you want to select channels 100 and above, enter channel numbers as a 3-digit number. If you do not have Cable TV, only channels 2-69 are available.

TV programs cannot be watched normally.
- Check the connections between the DVD/VCR, TV, antenna/Cable TV signal and Cable Box/Satellite Receiver (if applicable). *Details are on pages 9-14.*

Poor reception
- You may need to tune your TV again. Or, reset channels at the VCR using CHANNEL SET UP. *Details are on page 21.*

You cannot insert a video cassette.
- Insert the tape, window side up, with the record tab facing you.
- Make sure a tape isn't already in the VCR by pressing STOP/EJECT ■▲ (VCR) on the front of the DVD/VCR.
- Gently push on the center of the tape when putting it in the VCR. Never force the tape into the VCR.
- If a timer recording is set, you cannot insert a tape without a record tab.

You cannot remove the tape.
- Make sure the power plug is completely connected to a power outlet.
- If you have set a timer recording, press TIMER SET to delay the recording. "⏲" will disappear from the display panel. Then, press STOP/EJECT ■▲ (VCR) on the front of the DVD/VCR to eject the tape. Insert another tape and press TIMER SET to reset the timer recording.
- Unplug the DVD/VCR power cord for 5 minutes. Then, plug in the power cord again and press STANDBY-ON ⏻ on the DVD/VCR. Press STOP/EJECT ■▲ (VCR) on the DVD/VCR 3 to 5 times. If the tape still does not eject, you may need to have an authorized servicer remove the tape.

DVD/VCR ejects the tape when you press RECORD ● or TIMER SET.
- Make sure the tape has a record tab. *Details are on page 24.*

Satellite Receiver Hookups
- Watching one TV channel while recording another may not be possible if you have a Satellite Receiver. Set your TV to channel 03 or 04, then make your channel selections at the Satellite Receiver.
- With many Satellite Receiver hookups, if you use audio and video cables to connect your DVD/VCR to your TV, you will have to put your DVD/VCR in Line Input mode (L1 or L2).

Line Input mode
- If you accidentally enter Line Input mode (L1 or L2 will appear on your TV screen briefly), press SKIP ▶I/CH ▲ or SKIP I◀/CH ▼ or the Number buttons to select another channel.

Hi-Fi Stereo Sound
- During playback, Hi-Fi audio may normally revert to normal audio when you adjust tracking.
- When connecting the DVD/VCR to a TV with the red and white audio cables, you will only get stereo sound if you connect the DVD/VCR AUDIO OUT jacks on the DVD/VCR to the AUDIO IN jacks on your TV, and if the TV is on its Audio/Video In channel. See your TV owner's manual for details.
- When you connect the DVD/VCR AUDIO OUT jacks on the DVD/VCR to the AUDIO IN jacks on your TV, the stereo light on the TV might not glow. If the status display indicates you are receiving stereo, you are. *Details are on page 34.*
- Only tapes recorded in Hi-Fi audio will play in Hi-Fi audio. Tapes recorded in normal audio will play in monaural (single-channel) audio.

Cleaning the Video Heads
- Your DVD/VCR automatically cleans the video heads of the VCR each time you insert a tape. However, the heads may become dirty. If so, have an authorized servicer clean the video heads. Eventually, the heads may need to be replaced.

The playback picture is too dim, too bright or fluctuates in brightness.
- Some programs may be broadcast with copyright protection technology in order to protect the rights of copyright owners. This technology is used on programs that are recorded on video cassettes or DVDs, as well as some programs broadcast by antenna/cable/satellite television channels. Programs broadcast with copyright protection may not record clearly. Likewise, if you play a tape that is a recording of a copyright protected program, the picture may not be clear. Tapes of copyright protected programs may have a picture that is dark or dim, or the brightness of the picture may fluctuate. Therefore, avoid recording or playing copies of copyright protected programs.
- This DVD/VCR incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation and is intended for home and other limited viewing uses only, unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

64 Care and Maintenance

Cleaning the DVD/VCR
- Wipe the front panel and other exterior surfaces of the DVD/VCR with a soft, slightly damp cloth.
- Never use a solvent, thinner, benzene or alcohol to clean the DVD/VCR. Do not spray insecticide liquid near the DVD/VCR. Such chemicals may discolor the surface or damage the DVD/VCR.

Cleaning a Disc
- Use a soft, dry cloth to wipe the disc.
- Wipe the disc in a straight line from the center to the edge. Never wipe the disc in a circular motion.
- Do not use detergent or abrasive cleaning agents.
- Handle the discs so fingerprints and dust do not adhere to the discs.
- Always store the disc in its protective case when it is not in use.

Checking the Laser
- If the DVD/VCR does not operate as described in this manual, the DVD player's laser may be dirty. Consult an Authorized Service Center for inspection and cleaning of the laser.

Caring for Video Cassettes
- Use only cassettes with the VHS mark.
- Remove any light adhesive stick-on notes from the video cassette before putting the cassette in the VCR. Removable labels can jam the VCR.

Caring for the VCR's Video Heads
- Periodic maintenance is required to maintain your DVD/VCR's excellent performance. The VCR has an Automatic Head Cleaner. However, the video heads will require replacement eventually. Only an authorized service center should perform this service.

Specifications

VCR Video Heads
4 heads - Hi-Fi

Antenna
VHF/UHF – 75 ohm external antenna terminal

VHF Output Signal
Channel 03 or 04
75 ohms unbalanced

DVD Color System
NTSC

Frequency Response
DVD (linear sound):
20 Hz to 22 kHz (sample rate: 48 kHz)
20 Hz to 44 kHz (sample rate: 96 kHz)
Audio CD: 20 Hz to 20 kHz

Signal-to-Noise Ratio
Audio CD: 100 dB JEITIA
(Japan Electronics and Information Technology Industries Association)

Dynamic Range
DVD (linear sound): 90 dB
Audio CD: 85 dB (JEITIA)

Total Distortion Factor
Audio CD: 0.03% (JEITIA)
DVD: 0.03%

Wow and Flutter
Below the measurement limitation
(±0.001% W PEAK) (JEITIA)

Power Requirement
120V AC +/- 10%, 60 Hz +/- 0.5%

Power Consumption
Power on: 21 W
Power off: 3.8 W

Operating Temperature
41°F (5°C) to 104°F (40°C)

Relative Humidity
30% to 80%

Dimensions
17.1" (W) x 3.7" (H) x 9.2" (D)
(435mm x 94mm x 233mm)

Weight
6.0 lbs. (2.7 kg.)

NOTE: Designs and specifications are subject to change without notice.

PHILIPS LIMITED WARRANTY
ONE (1) YEAR

WARRANTY COVERAGE:
PHILIPS warranty obligation is limited to the terms set forth below.

WHO IS COVERED:
Philips warrants the product to the original purchaser or the person receiving the product as a gift against defects in materials and workmanship as based on the date of original purchase ("Warranty Period") from an Authorized Dealer. The original sales receipt showing the product name and the purchase date from an authorized retailer is considered such proof.

WHAT IS COVERED:
The Philips warranty covers new products if a defect arises and a valid claim is received by Philips within the Warranty Period. At its option, Philips will either (1) repair the product at no charge, using new or refurbished replacement parts, or (2) exchange the product with a product that is new or which has been manufactured from new, or serviceable used parts and is at least functionally equivalent or most comparable to the original product in Philips current inventory, or (3) refund the original purchase price of the product.
Philips warrants replacement products or parts provided under this warranty against defects in materials and workmanship from the date of the replacement or repair for ninety (90) days or for the remaining portion of the original product's warranty, whichever provides longer coverage for you. When a product or part is exchanged, any replacement item becomes your property and the replaced item becomes Philips' property. When a refund is given, your product becomes Philips' property.
Note: Any product sold and identified as refurbished or renewed carries a ninety (90) day limited warranty.

Replacement product can only be sent if all warranty requirements are met. Failure to follow all requirements can result in delay.

WHAT IS NOT COVERED - EXCLUSIONS AND LIMITATIONS:
This Limited Warranty applies only to the new products manufactured by or for Philips that can be identified by the trademark, trade name, or logo affixed to it. This Limited Warranty does not apply to any non-Philips hardware product or any software, even if packaged or sold with the product. Non-Philips manufacturers, suppliers, or publishers may provide a separate warranty for their own products packaged with the bundled product.

Philips is not liable for any damage to or loss of any programs, data, or other information stored on any media contained within the product, or any non-Philips product or part not covered by this warranty. Recovery or reinstallation of programs, data or other information is not covered under this Limited Warranty.

This warranty does not apply (a) to damage caused by accident, abuse, misuse, misapplication, or non-Philips product, (b) to damage caused by service performed by anyone other than Philips or Philips Authorized Service Location, (c) to a product or a part that has been modified without the written permission of Philips, or (d) if any Philips serial number has been removed or defaced, or (e) product, accessories or consumables sold "AS IS" without warranty of any kind by including refurbished Philips product sold "AS IS" by some retailers.

This Limited Warranty does not cover:
- Shipping charges to return defective product to Philips.
- Labor charges for installation or setup of the product, adjustment of customer controls on the product, and installation or repair of antenna systems outside of the product.
- Product repair and/or part replacement because of improper installation, connections to improper voltage supply, abuse, neglect, misuse, accident, unauthorized repair or other cause not within the control of Philips.
- Damage or claims for products not being available for use, or for lost data or lost software.
- Damage occurring to product during shipping.
- A product that requires modification or adaptation to enable it to operate in any country other than the country for which it was designed, manufactured, approved and/or authorized, or repair of products damaged by these modifications.
- A product used for commercial or institutional purposes (including but not limited to rental purposes).
- Product lost in shipment and no signature verification receipt can be provided.
- Failure to operate per Owner's Manual.

TO OBTAIN ASSISTANCE IN THE U.S.A., PUERTO RICO, OR U.S. VIRGIN ISLANDS...
Contact Philips Customer Care Center at:
1-888-PHILIPS (1-888-744-5477)

TO OBTAIN ASSISTANCE IN CANADA...
1-800-661-6162 (French Speaking)
1-888-PHILIPS (1-888-744-5477) - (English or Spanish Speaking)

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Some states do not allow the exclusions or limitation of incidental or consequential damages, or allow limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you.

This warranty gives you specific legal rights. You may have other rights which vary from state/province to state/province.

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